SEPTEMBER 5, 1936

Railway Age

Founded in 1856

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WHY—YOUNGSTOWN LIFT DOORS!

When lifting lever is not held down

Door drops down and rests on track.
Four-edge weather protection—cinder and weather proof.
Movement of door is prevented, resulting in elimination of wear in rollers and damage to door and back stops.

When lifting lever is held down

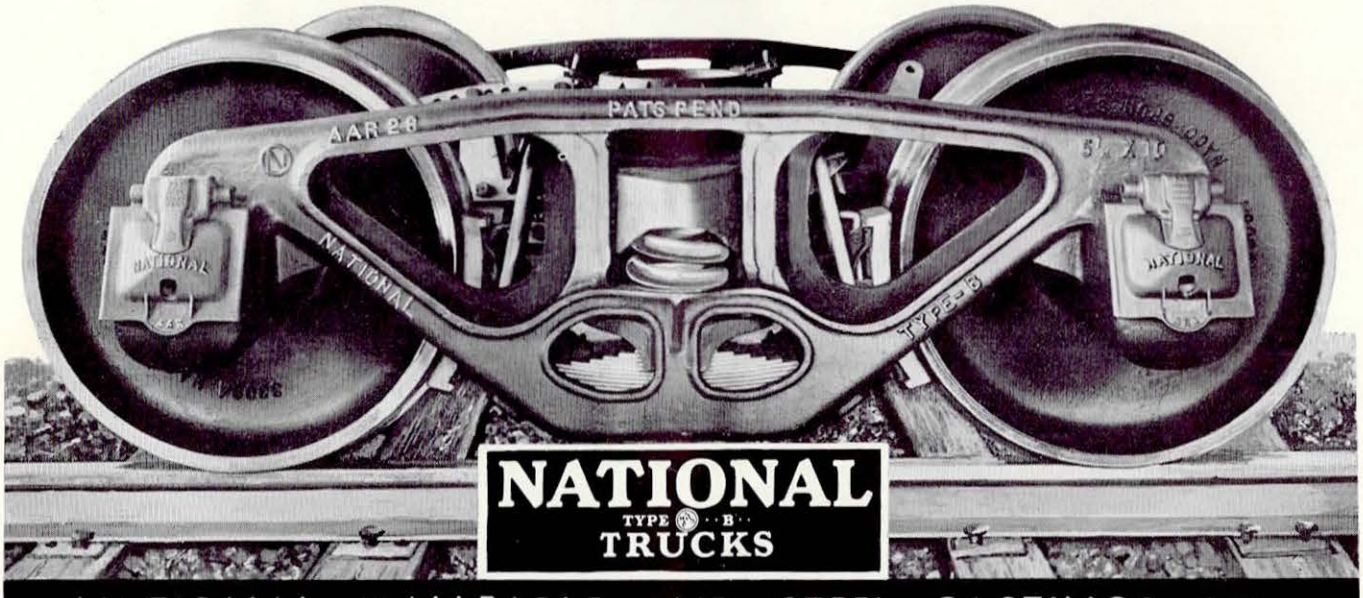
Door is raised on rollers having grease-packed roller bearings.
Door moves freely.

YOUNGSTOWN STEEL DOOR COMPANY

Cleveland Chicago New York Youngstown

REPEAT ORDERS

THE growing preference and the general acceptance of the National Type B Truck is the result of its exceptionally satisfactory performance during the past five years. . . . This superior and economical service is delivered at a general all-around reduction in costs both on the road and in the shops. Lower initial cost results in an immediate and positive saving. Fewer parts and the quick wheel change result in lower maintenance costs. Reduced dead weight permits an increase of revenue load. Then add greater safety and easier riding and you have some of the reasons why railroads have been specifying and reordering National Type B Trucks



NATIONAL MALLEABLE AND STEEL CASTINGS CO.
General Offices: CLEVELAND, OHIO
Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco
Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.

Canadian Representatives: Railway and Power Engineering Corporation, Ltd., Toronto and Montreal

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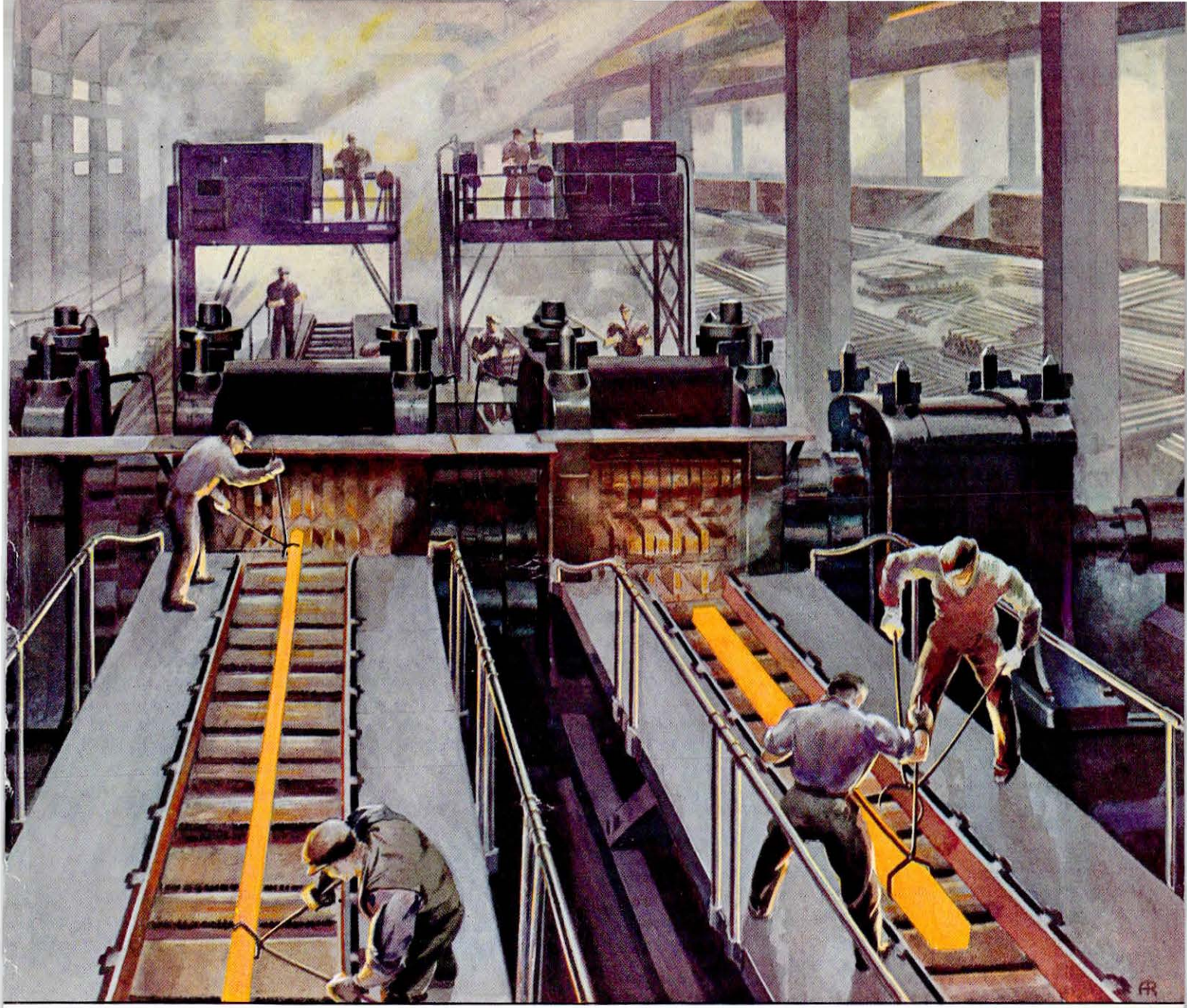


The Craftsman's touch on a tonnage product

The manufacture of the many different kinds of alloy steels used to carry the heavy burdens in industry and transportation calls for facilities that permit special handling, and the close supervision of master steelmakers, aided by elaborate apparatus for heat control.

In the Bethlehem Alloy Steel Plant both personnel and equipment measure up to these requirements in every particular. Here fine alloy steels are turned out on a tonnage basis with the superlative quality that can be obtained only by the painstaking care of highly skilled craftsmen.

Bethlehem Alloy Steels are well fitted for positions of high responsibility in automobiles, aircraft, locomotives, oil-refining and chemical plant apparatus, mining machinery or other applications.

BETHLEHEM STEEL COMPANY

BETHLEHEM STEEL

Steel Products for Today's Railway Needs

CONTROLLED-COOLED RAILS

BETHLEHEM is now producing rails by the Controlled Cooling process which has been developed to eliminate transverse fissures.

The Controlled Cooling process utilizes the discovery that transverse fissures are caused by shatter cracks which are sometimes found in rails cooled on the hot-beds in the ordinary way. This is now remedied by taking rails from the hot-beds at an elevated temperature and reducing their temperature gradually.

TRACK BOLTS AND SPIKES

BETHLEHEM makes bolts, nuts and related products for every railway requirement. Hot-forged nuts, track bolts, frog bolts, engine bolts, staybolts and super-heater bolts. Corrosion-resisting bolts, track spikes, turnbuckles, and many special items.

TRACK SPECIALTIES

FROGS and Switches, Switch Stands, Guard Rails, Gage Rods, Rail Anchors, and related equipment. Special Track Layouts.

HEADS AND OTHER FLANGED PRODUCTS

LET Bethlehem supply your needs in the line of tank heads, boiler heads, dome sheets, manheads, yokes, saddles, and miscellaneous flanged plate work.

The location of the Bethlehem Flanging Shop, with the plate mills and open-hearth furnaces of a large steel mill right at hand, makes it possible to fill large or small orders in any grade of steel with great speed.

ALLOY STEELS

MAYARI Engine Bolt Steel, Mayari Staybolt Steel, Silico-Manganese Spring Steel, Mayari Superheater Bolt Steel. Alloy Steel forging billets for heavy forgings.

CARBON STEEL BARS

IN making carbon steel bars Bethlehem pays special attention to the properties that make for high machinability, response to heat-treatment, and complete reliability.

PLATES — CARBON OR ALLOY STEEL

BETHLEHEM'S plate-making skill has shown up particularly in the manufacture of nickel-steel boiler and firebox plates to meet the exacting requirements of the service in respect to both fabricating qualities and serviceability.

A FULL RANGE OF STRUCTURAL SHAPES

BETHLEHEM Steel Company mills roll structural shapes for all the many uses in railway structures and equipment.

Bethlehem's complete range of structural shapes extends from 36-in. I-beams for single-span bridges down to the smallest angles.

WROUGHT-STEEL WHEELS

THE forging and rolling processes of manufacture give these wheels abundant strength and stamina for today's higher speeds. They can be furnished in the heat-treated condition.

BUILDINGS

STEEL frame buildings of all descriptions.

BRIDGES OF ALL TYPES

WEATHER-RESISTING SHEETS

BETH-CU-LOY Sheets are made of copper-bearing steel, the material which, impartial tests have shown, outlasts by two to two and one-half times steel made without the copper.

BOILER TUBES

GENUINE old-fashioned charcoal-iron boiler tubes; double-pass steel tubes. Double-pass copper-bearing steel tubes.

Other Bethlehem Products for Railways

RAILS and Accessories, Steel Freight and Passenger Cars, Tool Steels, Alloy Steels, Forged Steel Axles, Steel H-Piling, Steel Pipe, Castings, Forgings, Wire and Wire Products, including Bethanized Fence for extra-long life in corrosive atmospheres.

BETHLEHEM STEEL COMPANY, *General Offices:* Bethlehem, Pa. *District Offices:* Albany, Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Hartford, Honolulu, Houston, Indianapolis, Kansas City, Los Angeles, Milwaukee, New York, Philadelphia, Pittsburgh, Portland, Ore., Salt Lake City, San Antonio, San Francisco, St. Louis, St. Paul, Seattle, Syracuse, Washington, Wilkes-Barre, York. *Export Distributor* Bethlehem Steel Export Corporation, New York.

BETHLEHEM STEEL

BETHLEHEM STEEL COMPANY

the pounding of heavy traffic

THE combination of the Bethlehem Heat-Treated Track Bolt and the Bethlehem Hot-Forged Nut provides the fastening needed for railroad track today. It has the rugged strength to permit clamping rail joints in a grip that smooths the trail of the swift streamline train. And it holds track to the standards called for by this fast, light-weight equipment in spite of the rack and stress of heavy fast-freight and conventional passenger trains.

The tough, heat-treated steel of the bolt, the sinewy close-knit structure of the hot-forged nut, open the way to keeping track tuned up to the new high levels called for today without undue increase in maintenance costs.

BETHLEHEM STEEL COMPANY, *General Offices:* Bethlehem, Pa. *District Offices:* Albany, Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Hartford, Honolulu, Houston, Indianapolis, Kansas City, Los Angeles, Milwaukee, New York, Philadelphia, Pittsburgh, Portland, Ore., Salt Lake City, San Antonio, San Francisco, St. Louis, St. Paul, Seattle, Syracuse, Washington, Wilkes-Barre, York. *Export Distributor:* Bethlehem Steel Export Corporation, New York.

BETHLEHEM STEEL COMPANY

BETHLEHEM STEEL

She's traveling on the Sa

PERHAPS you saw in front-page headlines, last year's record of railroad safety. Yet this was only the peak record of many years' like achievement.

The American railroads have been the safest form of transportation, public or private, for many years; insurance statistics prove that you are actually far less likely to suffer harm on a modern railroad train than even in your own home.

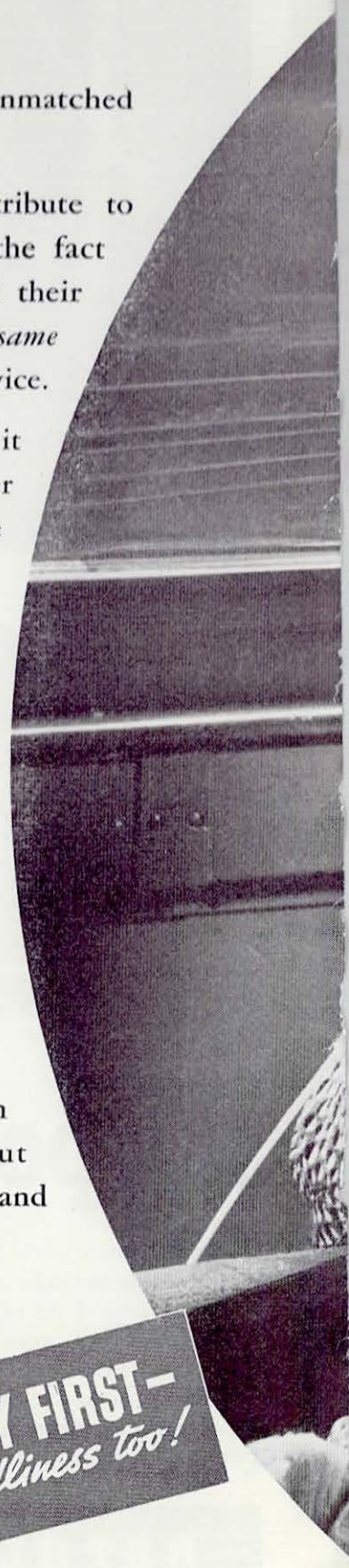
This doesn't just happen. The railroads are safe because they pioneered and have practiced Safety First for thirty years. They are safe even at their present stepped-up speeds, because they are *modern.*

Every mile of main-line track is today protected by safety practices as perfect as human ingenuity can so far devise. Unseen but constantly augmented improvements in locomotives, cars, brakes, couplings surround those who ride by rail with a degree of security unmatched elsewhere.

And probably the greatest tribute to practical railroaders lies in the fact that while they have bettered their safety record they have *at the same time* bettered their speed and service.

Freight travels 43% faster than it did a few years ago. Passenger trains have had running time notably cut. Comfort, as exemplified by air-conditioning, has been provided in steadily increasing measure.

"Safety First" still lives as the basic creed of American railroad men, but today it takes expression in the broader form—*"Safety first—friendliness too!"* Make your next trip by train and you will sample not only the safest travel in the world, but also the finest and most reliable.



GO PLACES—NOW—BY TRAIN

Rates are low—Safety, Speed and Comfort higher than ever before!

NO other transportation in the world can match the American railroads for speed with safety. And every modern convenience contributes to your comfort when you go by rail. Practically all through trains are air-conditioned — cleaner, quieter, healthier. You have modern lighting, excellent food, restful seats, comfortable beds, plenty of room to move around, and you get there on schedule. Yet with all the improvements railroads offer today, fares have been steadily lowered, both in coaches and Pullmans.

SAFETY FIRST— *friendliness too!*

ASSOCIATION OF AMERICAN RAILROADS

Transportation Building, Washington, D. C.

fest Carrier in the World!

DID YOU KNOW

—that the railroads haul a ton of freight a mile with a glass of water and less than a handful of fuel, and at rates averaging less than a cent?

—that the speed of freight trains has been stepped up 43% in recent years?

—that by increasing the efficiency of combustion the railroads have cut fuel costs a half billion dollars in the past ten years?

—that 44 cents of every dollar the railroads take in go for railroad payrolls?

—that the railroads maintain their own "highways"—a quarter of a million miles of "line"?

—that many railroads will carry your automobile to vacation spots for the price of a third ticket?

—that railroad fares throughout the United States have been reduced as much as 44%, and that Pullman fares are one-third less, with no surcharge?

—that you are far safer on a railroad train than you are in your own home?

PIONEERING STILL GOES ON!

Railroad research has now perfected a "Loadometer" which permits advance study in the laboratory of the actual effects of load, vibration, friction, speed and atmospheric temperatures upon various bearing designs, bearing metals and lubricants. Thus does modern railroad research anticipate "trial and error" and make it more nearly possible to perfect equipment before it is placed in actual service. This is one of countless pioneering efforts covering a wide range of studies and including such varied projects as Equipment Design, Metal Alloys, General Equipment and Performance of Signal Apparatus, Design tion Methods, Wood Decay, Metal Corrosion, Water Softening. If all the research activities carried on by the American railroads were concentrated in one huge laboratory it would require an institution housing thousands of men, providing millions of square feet of floor space. Six railroads, two universities, and ten supply companies alone, for example, maintain a permanent research personnel of about 1,000 people.

SINCE railroads first opened up the continent to commercial development, definite principles for the efficient and profitable operation of railway service have emerged from the experimental state. The durability and long term economy of AmCreCo ties, piles, poles and timber for structures, track and bank protection have long been recognized as contributing substantially to low operating costs. The experience of AmCreCo engineers is at your service.

AMERICAN CREOSOTING COMPANY

INCORPORATED

COLONIAL CREOSOTING COMPANY INCORPORATED

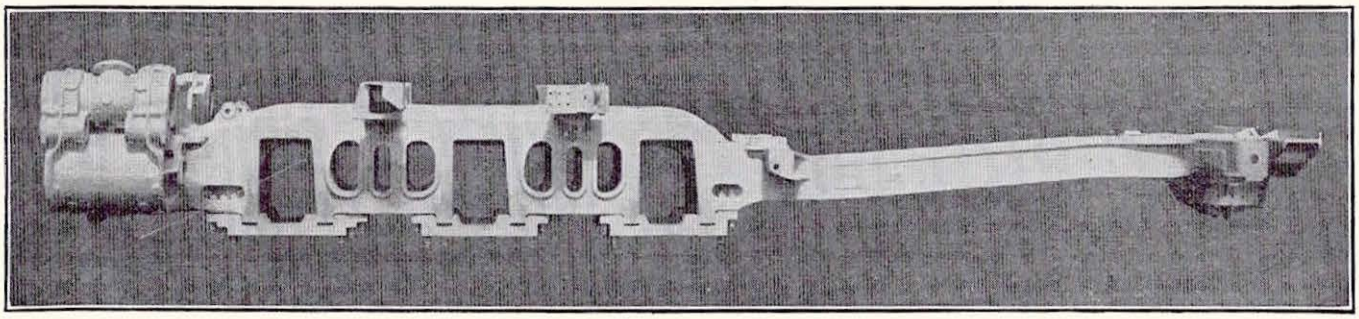
AMCRECO LOWRY PROCESS CREOSOTED WOOD

GEORGIA CREOSOTING COMPANY INCORPORATED

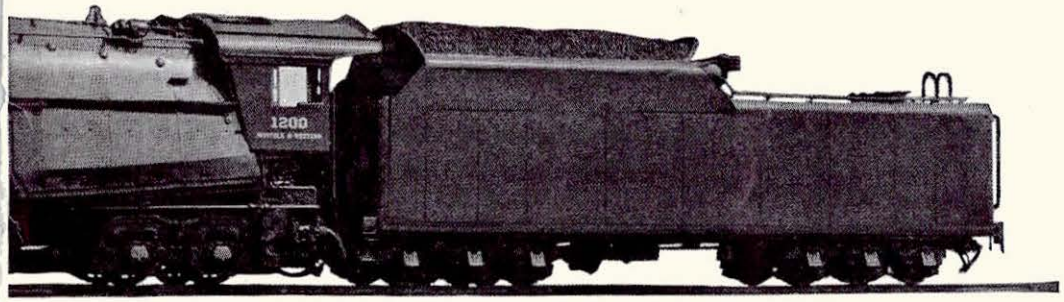
LOUISVILLE — KENTUCKY

NORFOLK AND WESTERN

blazes the trail in freight transportation with powerful high-speed locomotives built for maximum availability and lowest maintenance.



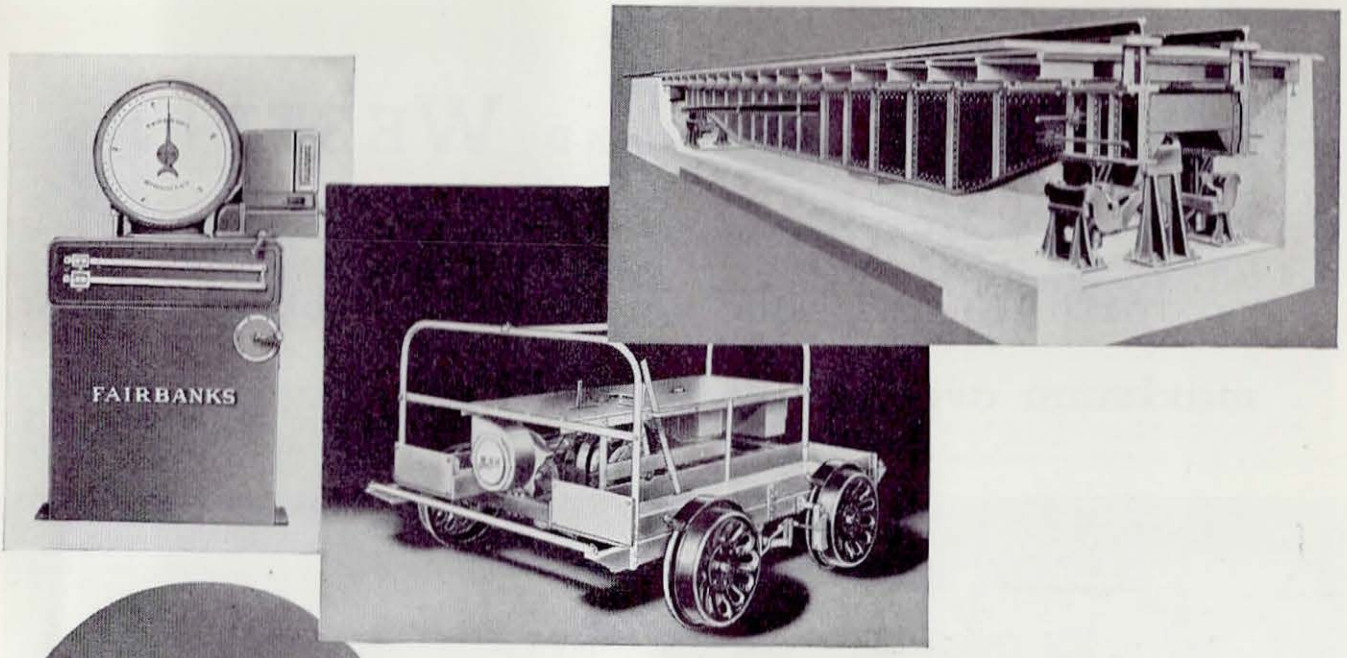
One-piece Bed for Rear Unit



Tractive power 104500 lbs. 300 lb. steam pressure. Single expansion.

COMMONWEALTH PRODUCTS
INSURE MAXIMUM AVAILABILITY
AND LOWEST MAINTENANCE.

GENERAL STEEL
CASTINGS CORPORATION
Granite City, Ill. **Eddystone, Pa.**



"What *don't* you have?"

asked a purchasing agent of one of our men recently

"WHEN we want track scales, you bring us Fairbanks. When we need motor cars, you have Sheffields for us. When we're planning a new yard standpipe or an isolated coaling station, I call you in. When there's an air conditioning job to be done, we want your axle generators. The electrical department swears by your motors, and we handle our water in this very terminal with your pumps."

The Fairbanks-Morse Railroad family *is* a large one. But we've been serving the many needs of railroading since '69 when Thaddeus Fairbanks helped to build the old Portland and Ogdensburg. With this background of experience, we have built both the products and the service that railroading requires. For full information on any of our products, address Department L-701, Fairbanks, Morse & Co., 900 S. Wabash Avenue, Chicago, Illinois.

6788-RA-21.102

106 YEARS OF PRECISION MANUFACTURING

FAIRBANKS-MORSE

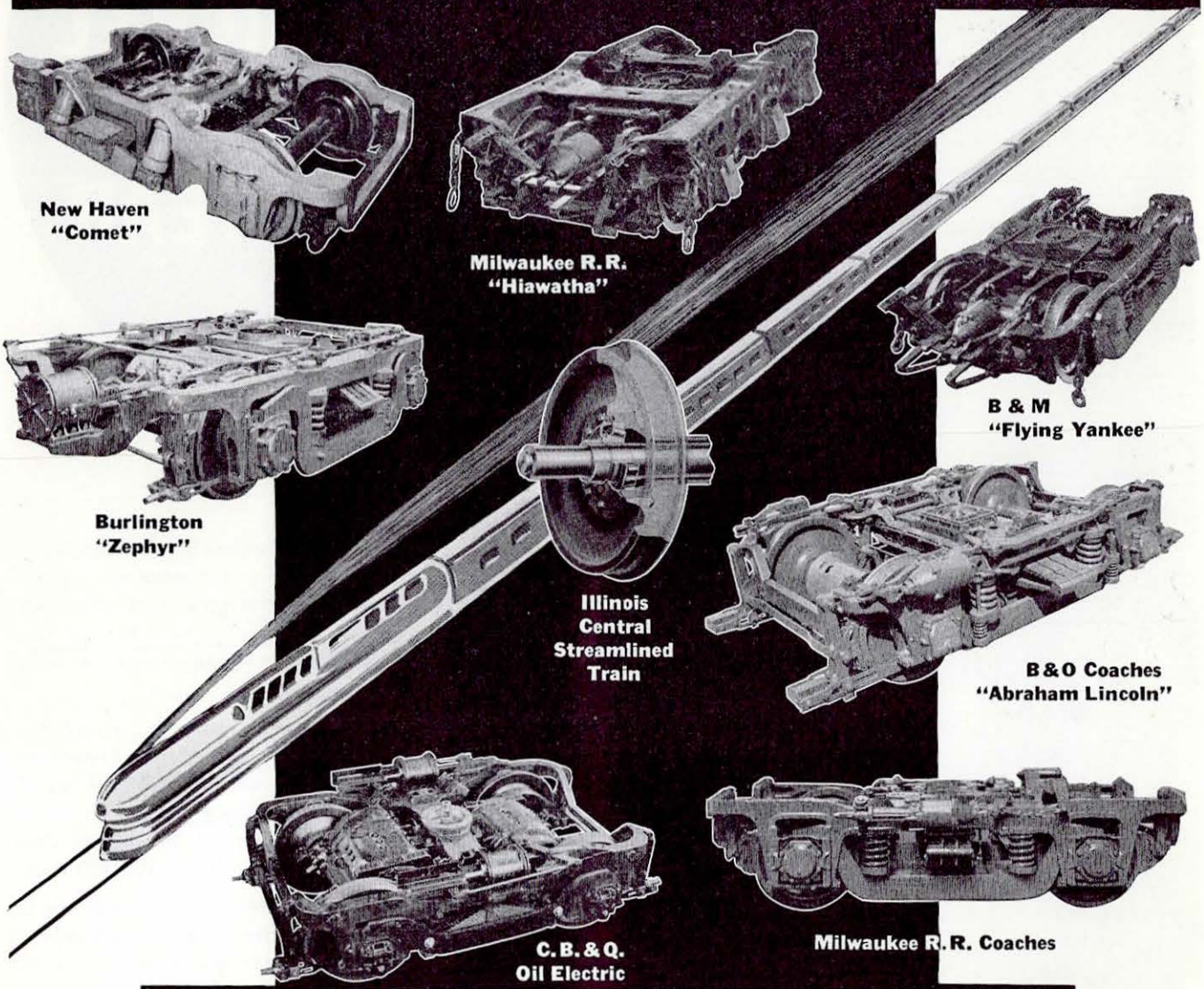
Railway Equipment

POWER, PUMPING AND WEIGHING EQUIPMENT

Recent Installations

Simplex Unit Cylinder Clasp Brakes AND Roller Bearing Units

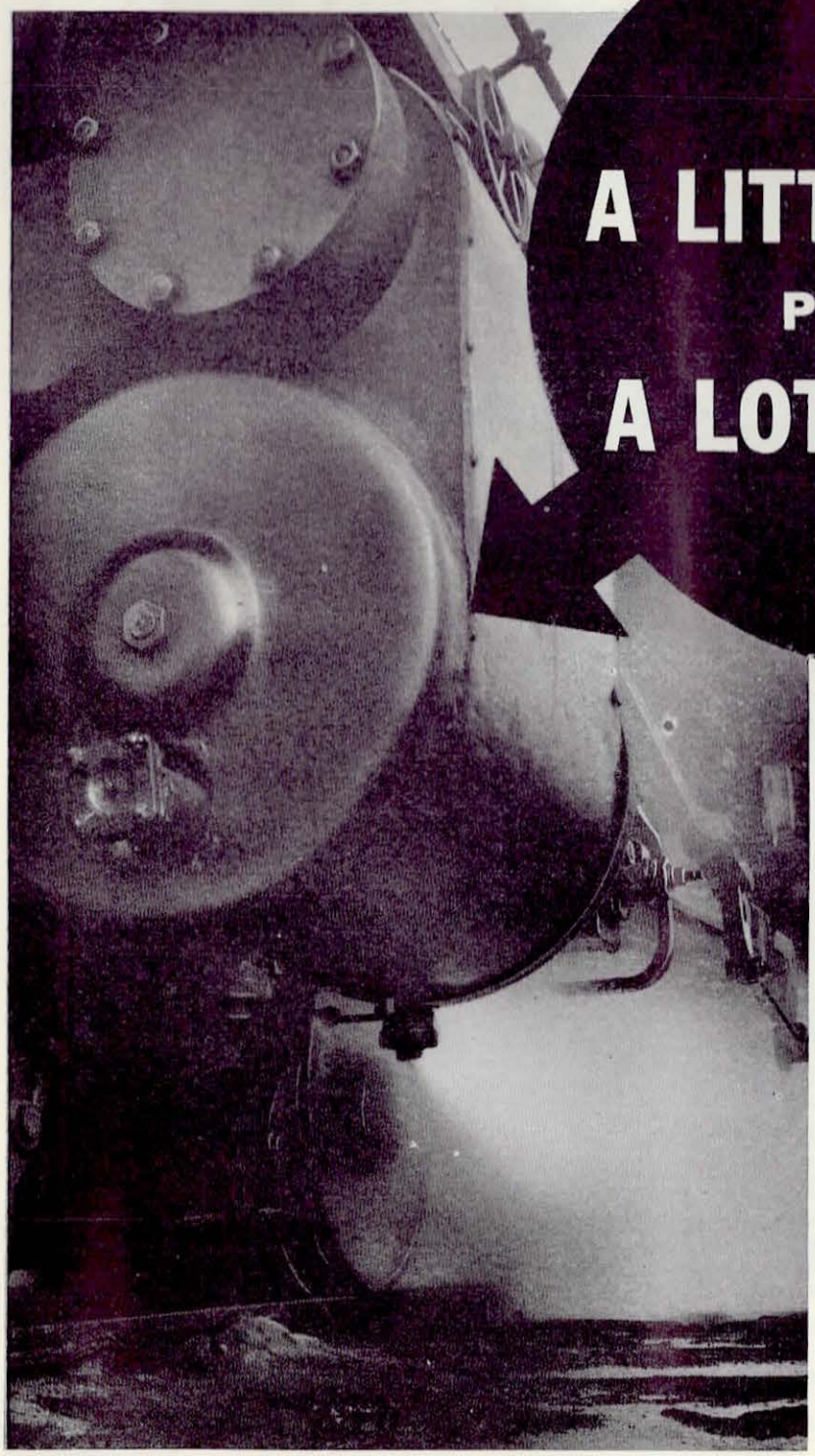
In High Speed Trains



The new streamline trains are more than a unique symbol of progress. They will make a practical contribution to the earning power of the American railroads. They will shorten distance, revise time schedules downward, lower costs of operation and generally improve transportation.

AMERICAN STEEL FOUNDRIES

NEW YORK CHICAGO ST. LOUIS



WHERE A LITTLE NICKEL PREVENTS A LOT OF WEAR

● Few mechanical parts are subjected to greater wear than a locomotive's cylinder assembly. Cylinder walls, liners, valve bushings, pistons, bull rings and packing rings are subjected to incessant metal-to-metal contact.

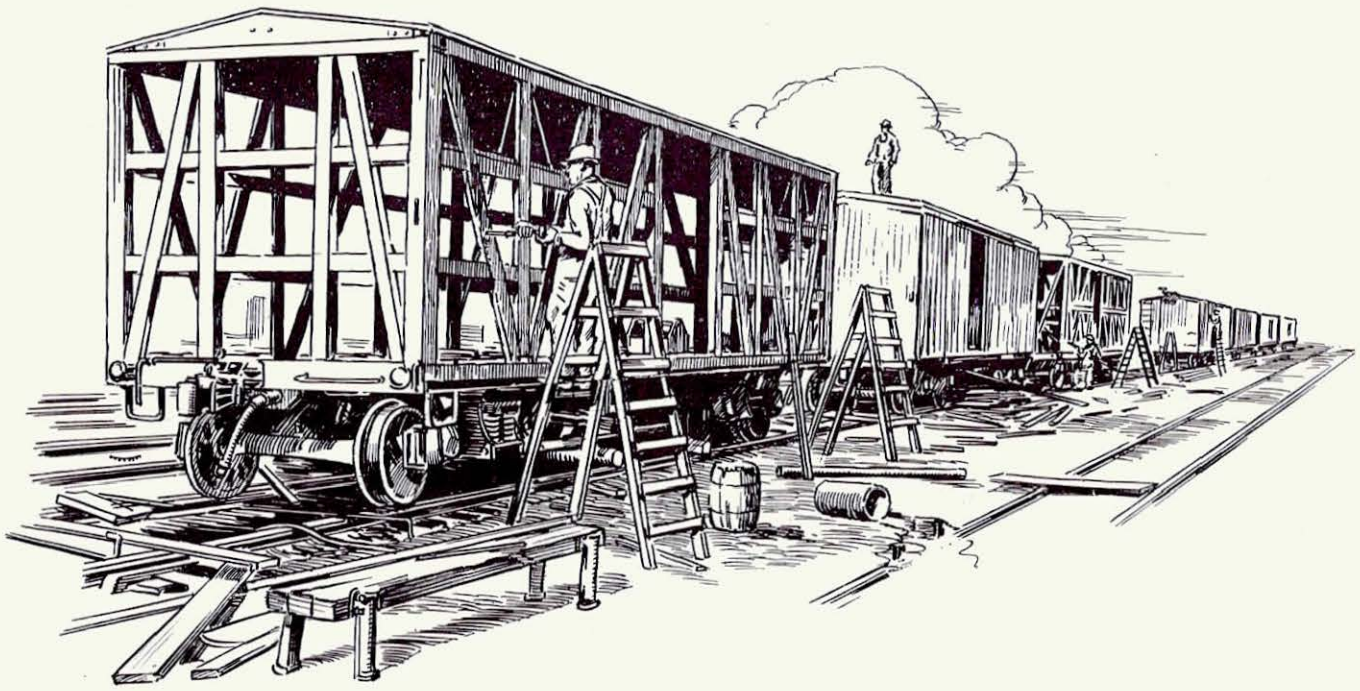
More than a decade ago railroad mechanical engineers decided to experiment with plain iron containing 1% of Nickel. As a result the service life of these parts was notably increased, the life of rings alone being increased to 100,000 miles.

When a little Nickel is added to iron or steel, grain structure is substantially refined, resulting in high resistance to wear, shock, stress and fatigue. There are a host of applications where these tough, strong, hard, enduring alloys will effect worthwhile savings in equipment maintenance costs. Our engineers and casting specialists are always at your service for consultation.

CAST IRONS **NICKEL** ALLOY STEELS

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL ST., NEW YORK, N.Y.

$21,000,000 Per Annum



IN the section devoted to rebuilding old equipment, Coverdale & Colpitts make the following statements in their report on the "Economic Aspects of the Freight Car Situation".

"Box cars awaiting repairs on Class 1 Railroads numbered 102,000 as of January 1, 1936, of which 77 per cent, or about 79,000, were awaiting heavy repairs. In view of the fact that the railroads own so many cars over 20 years of age (approximately 300,000 box cars) it seems reasonable to assume that most of the cars awaiting heavy repairs at the present time would come under that classification. If such cars are to be placed in first-class condition, it is apparent that the railroads will have to rebuild them.

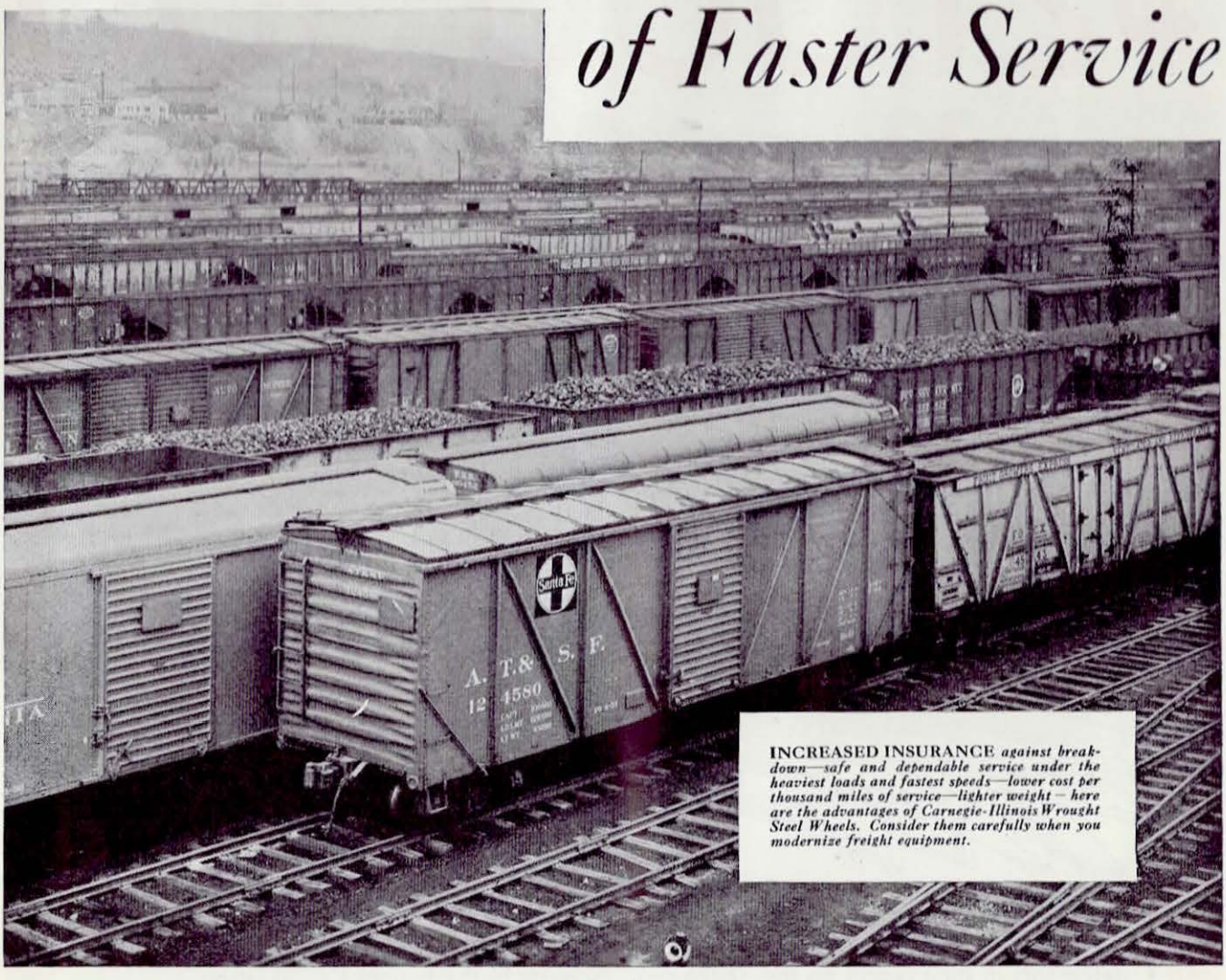
"We have shown, however, that the rebuilding of box cars as compared with the replacement with new Association of American Railroads cars of modern design would result in an annual loss per car of $72.00. In other words, if the railroads should decide to rebuild 60,000 of these box cars awaiting heavy repairs (assuming that these are all over 20 years of age) instead of retiring them and buying new equipment, they would incur an annual loss of over $4,000,000.

"In addition to these 60,000 box cars, there were at the beginning of the year approximately 240,000 additional box cars over 20 years of age. In the near future the railroads will be confronted with a similar problem with respect to this equipment, which, under the same assumptions mentioned above, would entail a further annual loss of approximately $17,000,000."

American Railway Car Institute

19 Rector Street New York, N. Y.

Soon to FACE *the* TEST *of Faster Service*



INCREASED INSURANCE *against breakdown—safe and dependable service under the heaviest loads and fastest speeds—lower cost per thousand miles of service—lighter weight—here are the advantages of Carnegie-Illinois Wrought Steel Wheels. Consider them carefully when you modernize freight equipment.*

RAILWAY distances are shrinking. In many cases freight trains now give overnight service for distances up to 470 miles. Freight travels 44% faster than in 1922—25% fewer trains carry the same volume of traffic. During 1935 the average train load was stepped up to approximately 730 tons.

Logically this faster tempo, this more intensive use of freight equipment, demands better wheels . . . wheels built to match the requirements of faster freights. Here lies the need for Carnegie - Illinois Wrought Steel Wheels. Long accepted as standards of excellence for fast passenger service, used on many of the trains that are shattering speed records today, these wheels have convincingly demonstrated their safety under high speeds, their stamina under heavy loads.

As you modernize freight equipment, modernize your wheels, too. Give Carnegie-Illinois Wrought Steel Wheels your careful consideration. In freight service they will insure you unequaled dependability, increased resistance to shock and impact, uniform resistance to braking wear, definitely longer life, lower cost per thousand miles of service.

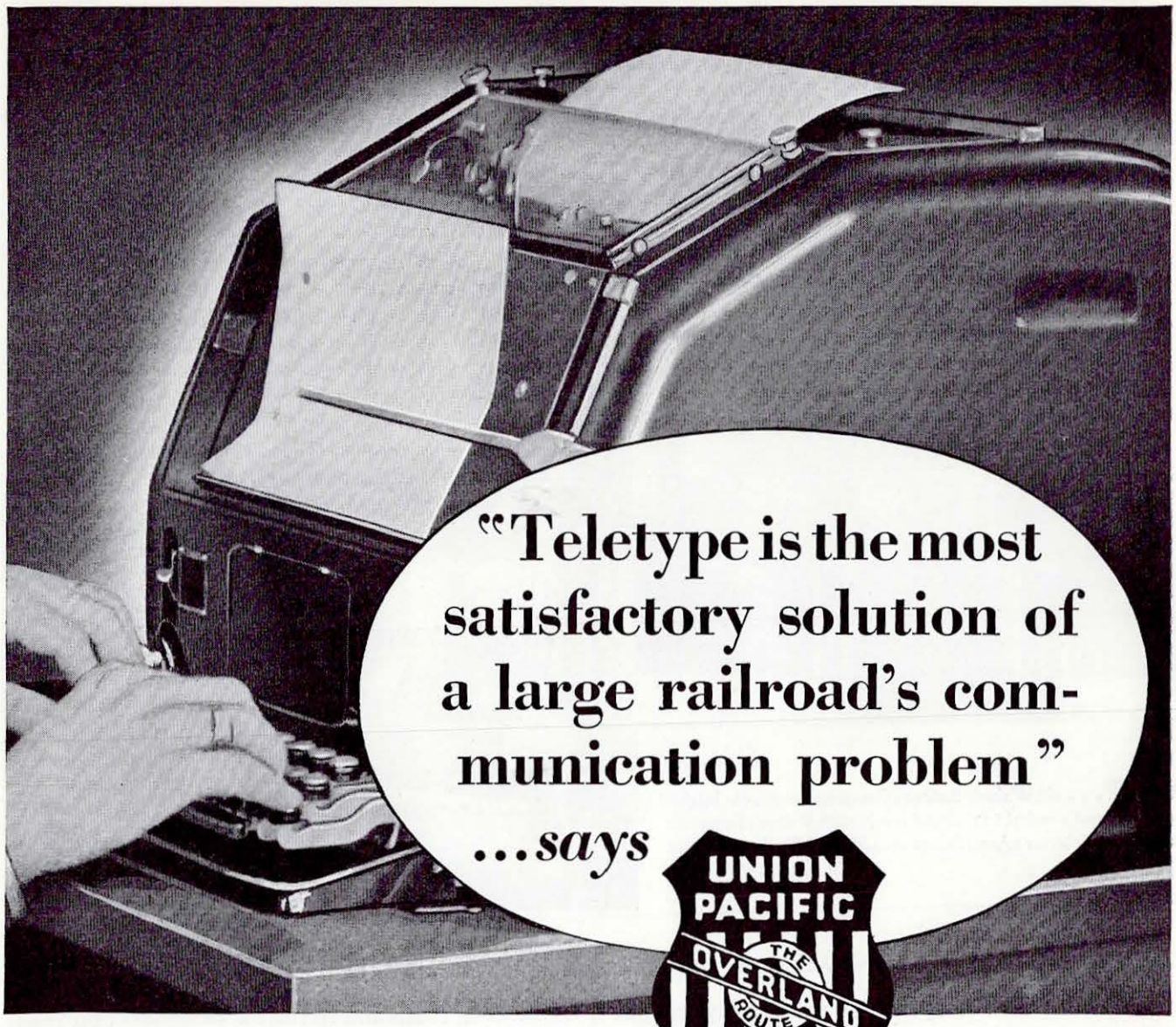
CARNEGIE - ILLINOIS *Wrought Steel* WHEELS

CARNEGIE-ILLINOIS STEEL CORPORATION · *Pittsburgh and Chicago*

Columbia Steel Company, San Francisco, *Pacific Coast Distributors*

United States Steel Products Company, New York, *Export Distributors*

UNITED STATES STEEL



"Teletype is the most satisfactory solution of a large railroad's communication problem" ...*says*

UNION PACIFIC — THE OVERLAND ROUTE

D 176 U K
OMAHA JUL 22 36 910AM
AGT COBLUFFS CHECK CLOSE NY 189
PFE 71666 SEVEN SIXTEEN DOUBLE SIX DAVENPORT 19 COUNCIL BLUFFS
DIVERT OPEN JACK STEELE PRODUCE CO CHICAGO ILL CGW
WALL

One of hundreds of Union Pacific diversions handled daily by Teletype without loss or delay of a single shipment. Teletype gets the information to destination ahead of the train.

"IN the diversion of perishable freight, speed and accuracy are essential," says Union Pacific. "Between Omaha and Council Bluffs (for example) more than 2000 diversions each month—as many as 270 in a single day—are handled by Teletype without failure or delay to the shipment. And in a *fraction of the time* required under old methods. Individual written confirmations and acknowledgments are no longer necessary."

Union Pacific—like other leading roads—has found Teletype most efficient and most economical for general message traffic, reporting car arrivals to trace bureaus, transmitting consists and other reports."

Teletype can serve *your* road, too. Mail the coupon today for more detailed information.

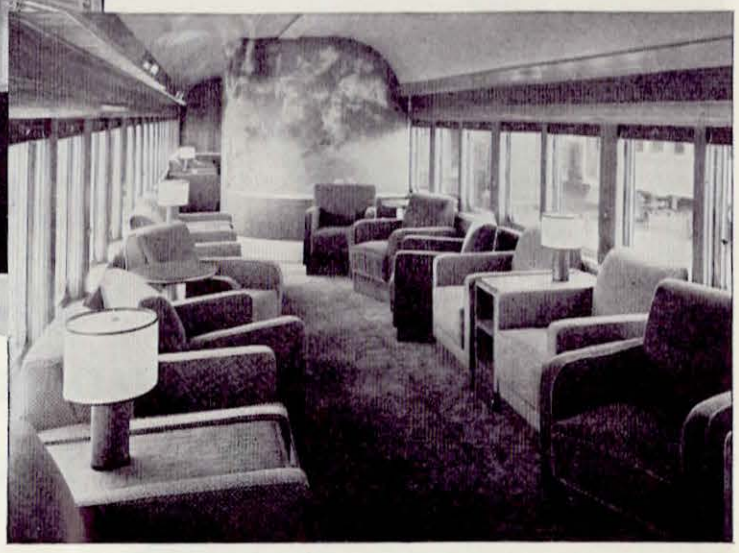
TELETYPE
REG. U. S. PAT. OFF.
SUBSIDIARY OF
Western Electric Company

TELETYPE CORPORATION, 1400 Wrightwood Avenue, Chicago, Illinois
Gentlemen: Please send me information on how Teletype can help to solve our communication problems. RA-9-5-36

Name.....
Railroad.....
City..... *State*.....

Both ways...
FROM DETROIT

EAST... *the Mercury, New York Central's newest streamliner—designed by Henry Dreyfuss, New York—offers patrons the luxury of Velmo upholstery.*



WEST... *the Wabash Railway Company attains the heights of beauty and comfort in railroad travel with Velmo's luxurious upholstery. Interior scheme designed by Mandel Brothers, Chicago.*

VELMO HAS BEEN NEWS since the '80's, when the first piece of this sturdy mohair velvet was woven for an American railroad. *Good news*, because no other pile fabric has ever equalled its wear. *Good news*, because Goodall-Sanford has constantly presented weaves and textures just a "trend" ahead of the times.

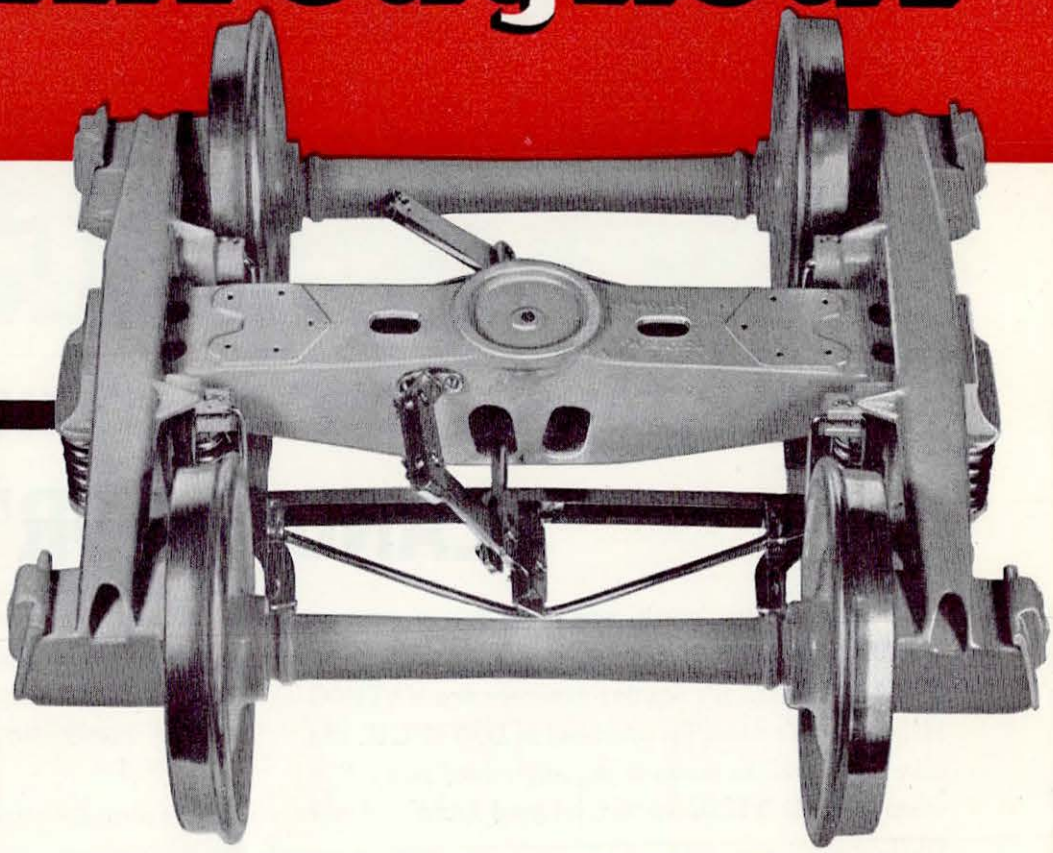
Leading roads and industrial designers find ready assistance from Chase . . . whose experience and scores of case histories are open to you. Ask about the beautiful mohair velvet that is literally *"Good to the Last Mile!"*

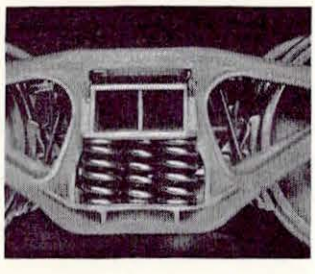
VELMO
MOHAIR VELVET

A GOODALL-SANFORD PRODUCT

L. C. CHASE & COMPANY, INC.
selling division of Goodall-Sanford
295 Fifth Avenue, New York
Boston • Chicago • Detroit • San Francisco

Full box section . . . throughout





This full box section at the bolster end has another important advantage . . . it provides a large flat bearing for the springs . . . creating unvarying pressure, even loading, free movement and easy shimming.

Bolsters of Self-Aligning (spring-plankless) Trucks have full box sections . . . the most effective design for these important members.

Full box sections extend all the way . . . including the spring seat sections. This box construction (with ribbed reinforcements at this and other points) effects a saving in weight over a more complicated design.

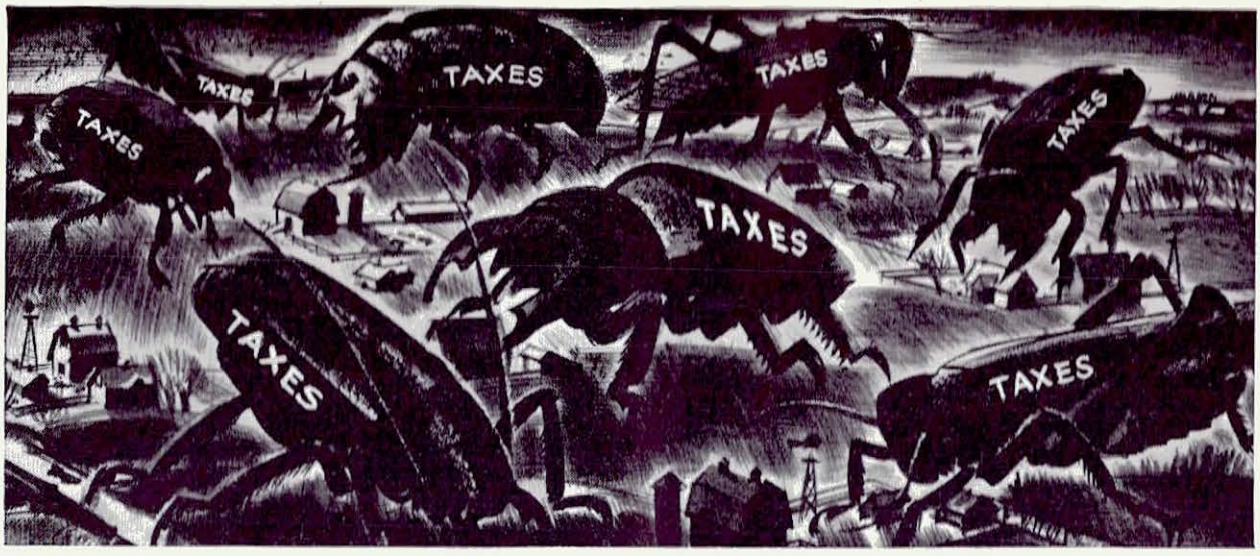
Self-Aligning Trucks have the lightest weight possible and incorporate designs that have proved their low maintenance costs, safety and accessibility, through years of service. Specify "Self-Aligning."

THE BIRDSBORO STEEL FOUNDRY AND MACHINE CO.
BIRDSBORO, PENNSYLVANIA
Offices: NEW YORK • PITTSBURGH • CHICAGO

SELF-ALIGNING TRUCKS

spring-plankless double-truss

UTILIZE DESIGNS OF PROVED DEPENDABILITY



Taxes can make us all "LAND POOR"

WHAT do we mean when we say a man is LAND POOR?

We mean that his regular expenses are EATING HIM UP. We mean his overhead is TOO HIGH. He may do as well as the next man in a good year. But when a BAD YEAR comes, he goes DOWN AND OUT.

We used to think a man couldn't be LAND POOR if he owned his farm outright. We thought just so long as he had no mortgage interest to pay, he could get by.

But that was BEFORE TAXES WENT UP. There's land all over the country today that a man can't afford to take as a GIFT. Even if he owned it clear, TAXES would prevent him from making a living out of it. TAXES have made fair land worse than worthless, and TAXES have made good land WORTH LESS than it should be.

You could stand land taxes IF THEY WERE ALL YOU HAD TO PAY. But taxes are also hidden in everything you buy. Our national tax bill equals ⅓ of what is spent in STORES. GASOLINE for your car averages 40% to 60% taxes. GOVERNMENT SPENDING NOW EQUALS ALMOST ⅓ OF OUR NATIONAL INCOME.

For years the tax-grabbing politicians have been RIDING the farmer and the city worker alike. Total expenses of government now equal $517.00 A FAMILY. Probably ⅓ of this is WASTED—or $166.00 yearly per family. IS THIS WORTH SAVING?

Let's stop government waste. Let's replace every tax grabber—no matter what party he belongs to—with a wise, careful lawmaker. Hard-working citizens in city and country can do it if they will TEAM TOGETHER in a non-partisan effort. Here are two things you can do RIGHT NOW. They can't do any harm, and if everybody works together, they can do AN IMMENSE AMOUNT OF GOOD.

MAKE THIS RESOLUTION—"I will oppose every political candidate who cannot prove that he has used all his influence to reduce government expenditures."

WRITE THREE LETTERS—one to your County Clerk, one to your Governor, one to the President of the United States. Say, in each letter, just this: "*I want the cost of government reduced.*"

REGISTER—VOTE—Give your support to candidates, regardless of party, who WILL cut the waste out of government.

Space for this message is provided by Railway Age because of a firm conviction that a reduced cost of government is vital to the interests of all its readers

FLASHING LIGHT AUTOMATIC GATE COMBINATION INSTALLED AT— WOOD STREET, HARVEY, ILLINOIS

THIS New Development in Highway Crossing Protection Utilizes Semaphore Operating Mechanism.

At this extremely hazardous crossing accidents occurred frequently—even after flashing light signals were installed. Additional protection was essential.

Through the initiative of Grand Trunk Western Signal Dept. forces acting in co-operation with the Western Railway Supply Company, a simple and inexpensive combination of flashing light and automatic gate was devised, *which utilizes regular semaphore operating mechanisms.*

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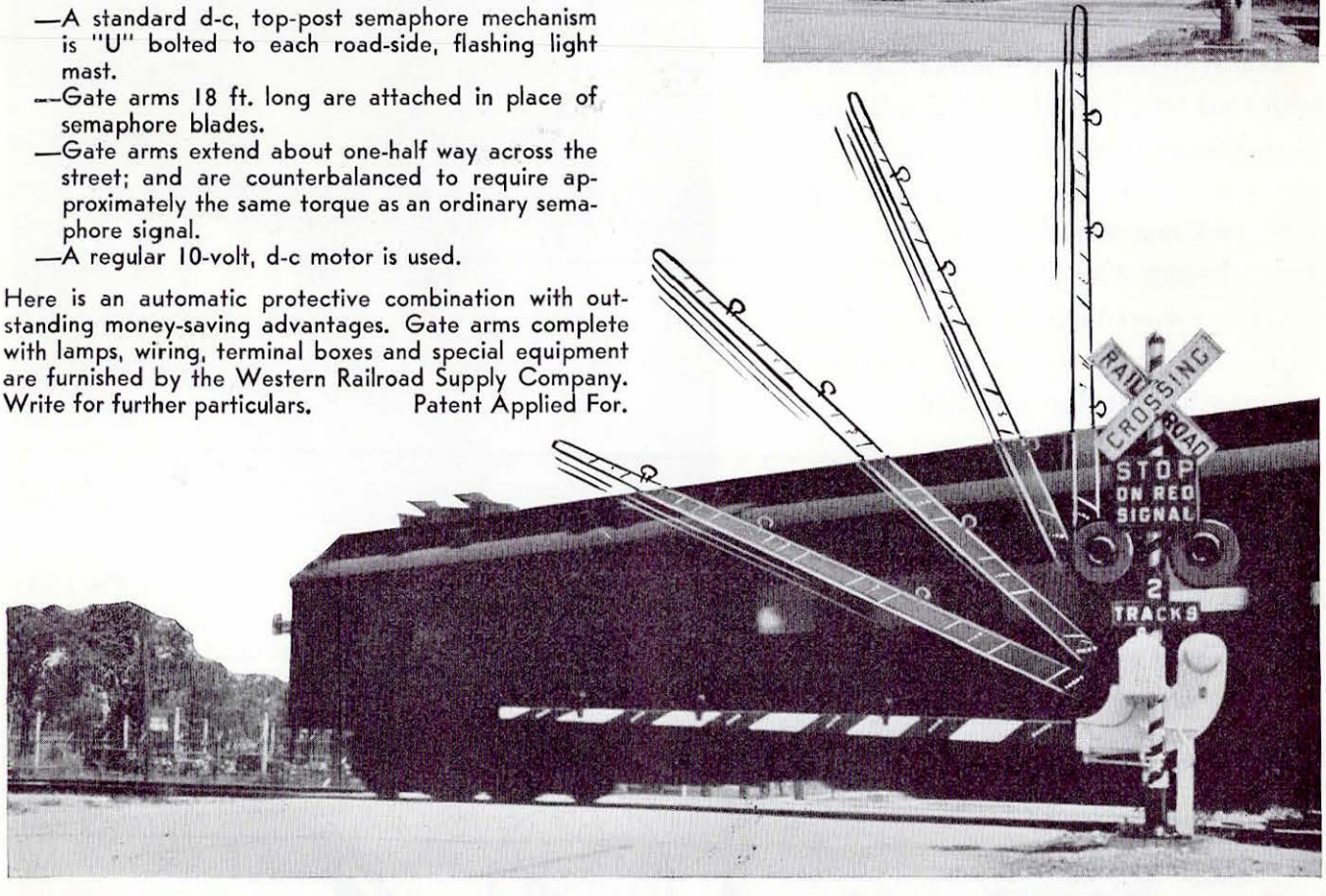

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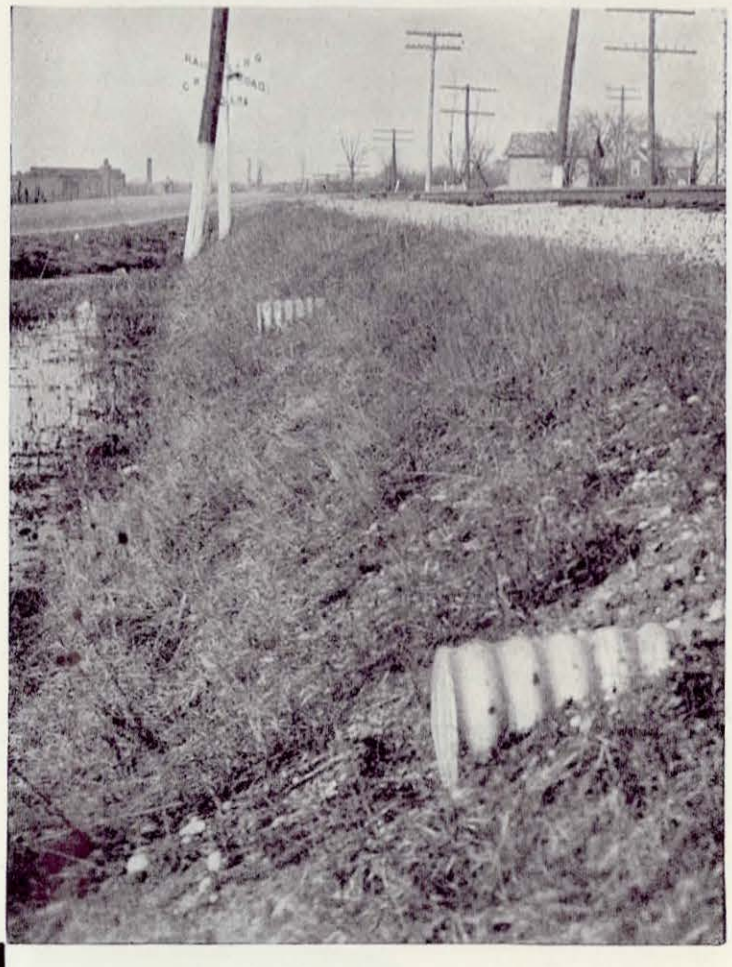

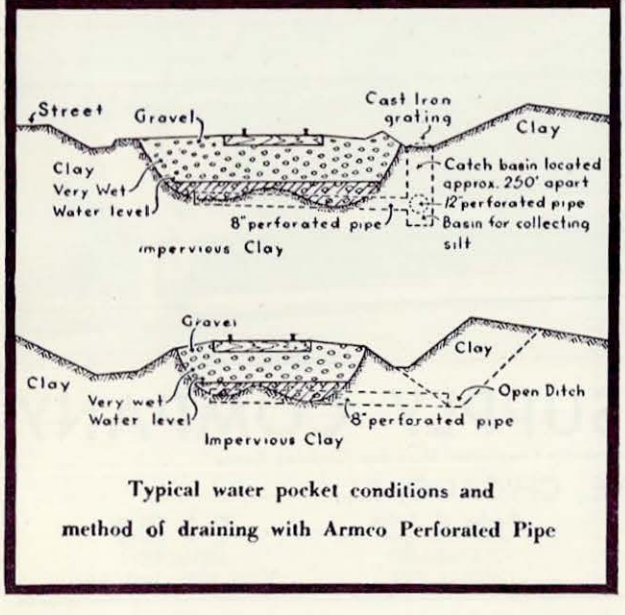

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One car is a "duplex," being one of several such experiments now being tried out—Cars are finished in gunmetal, set off with black and gold striping.

53 Miles of Railway Relocated in Ohio Flood-Control Project 345

P. W. A. funds—aided by state appropriation and property levy—used to minimize flood damage in Muskingum watershed, resulting in largest railway line construction program of the year.

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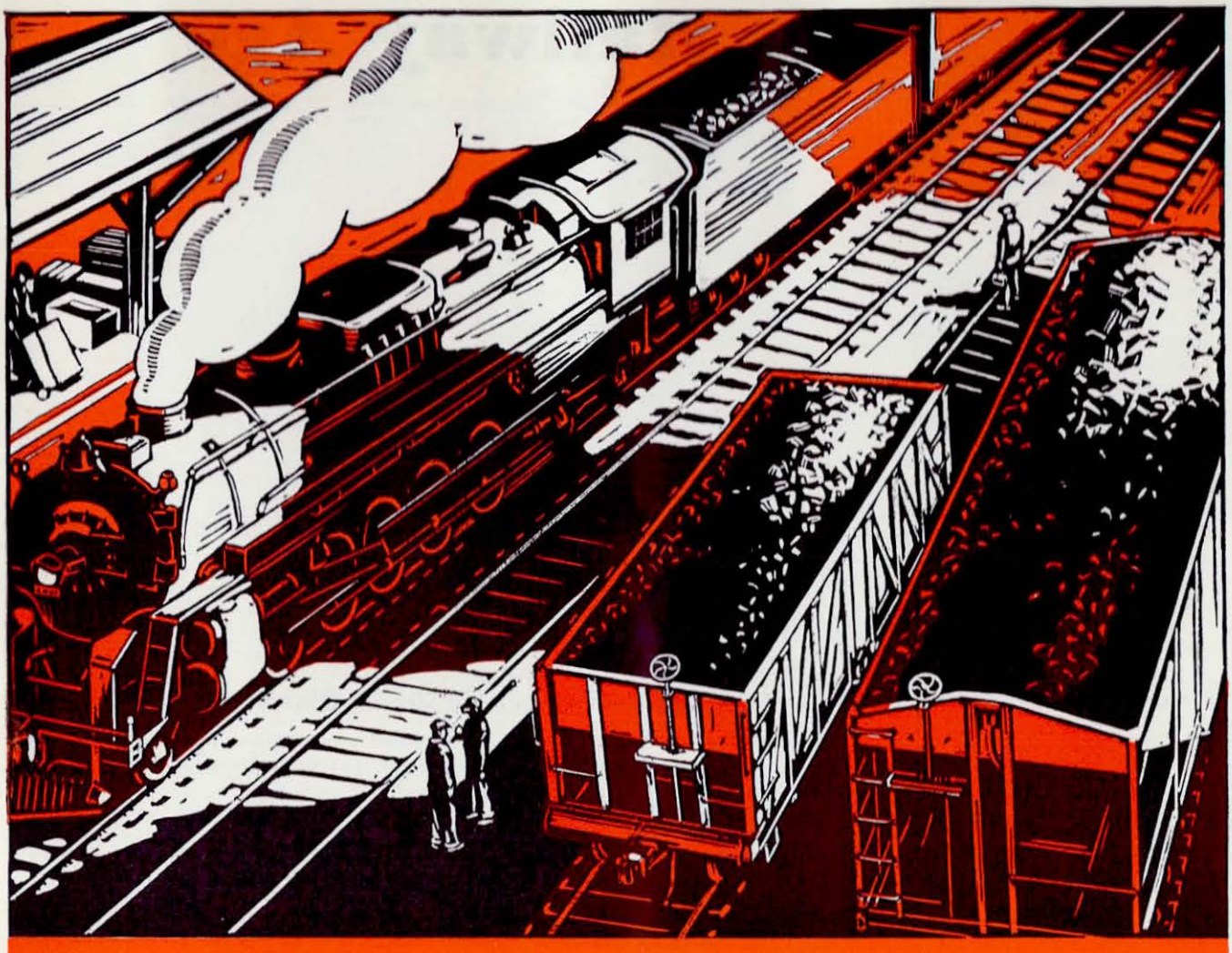

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RAILWAY AGE

"Cockeyed" Tax Legislation and the Railway Industry

In his speech on taxation at Buffalo, N. Y., last week Governor Landon characterized the undistributed profits tax act which the Roosevelt administration forced through the recent session of Congress as "the most cockeyed piece of tax legislation ever imposed in a modern country." Certainly in the harmful effects which this legislation, if not repealed or modified, will have on the railroads, the railroad manufacturers, and the employees of these industries, the adjective is not too strong. "Cockeyed" means more than merely harmful; it means also blatantly foolish and inconsistent. And the undistributed earnings tax, in its effect on the railroads, is all of that.

What has been the principal New Deal criticism of the railroads? It is that the railroads are capitalized to too great an extent by fixed-interest-bearing bonds, so that in time of financial stress they are forced into deep retrenchment (which, of course, reduces employment); and that the roads in such times get into financial difficulties which they would avoid if a larger percentage of their capitalization were represented by stock or undivided surplus. Heedful of this criticism, the Interstate Commerce Commission has for some time been requiring the establishment of sinking funds for most of the bond issues which it has authorized.

Penalizing Payment of Debts

Now no one can doubt that the depression proved this "reform" measure to be very desirable. It has been generally acknowledged that too many railways have had greater bonded indebtedness than they could safely carry, (although the issue of bonds was frequently the only method by which new capital could be raised). But the new revenue act *penalizes the accumulation of sinking funds, by taxing them as undistributed income.* The railroad wishing to set its financial house in order in accordance with the advice of administration leaders and the requirements of the Interstate Commerce Commission now finds the Treasury department ready to swoop down and confiscate up to 27 per cent of the funds which it sets aside for the purpose. Certainly "cockeyed" is not too strong a designation for a tax which a government imposes that is calculated to defeat one of the important reforms that it ostensibly favors.

There are, to be sure, some exceptions to the provision that sinking funds are to be taxed as undistributed surplus. If provisions for these funds were made prior to April of this year, and if they happen, fortuitously, to be worded just right, then these funds will escape penalty taxation. But in view of the criticism which administration leaders have leveled at railroad capital structures, consistency would demand complete freedom from penalizing of any earnings set aside to reduce bonded indebtedness, whether by sinking funds or otherwise. Paying off debts is not considered to be distribution of income; and the railroad which tries thus to put its house in order will find the Treasury officials standing by to take away up to 27 per cent of the money it accumulates for that purpose.

Penalizing Investment of Earnings

The significance of this tax legislation as applied to railways may be well illustrated by statistics showing how it would have affected their financing if it had been in effect during the decade from 1920 to 1930. Between these years the increase in the amount of railway securities outstanding in the hands of the public was $2,072,000,000, of which $1,592,000,000 represented funded debt and $480,000,000 was stock. Meantime, the increase of investment in road and equipment was $6,202,000,000. The excess of $4,130,000,000 in the increase of investment over the increase in outstanding securities was the cumulative result of the investment of net operating income in railway properties during this decade at an average rate of $413,000,000 annually.

The theory of the taxation of undistributed earnings is that all the net operating income invested in railway properties from 1920 to 1930 should have been paid out to security-owners. But if this had been done, either this investment of $4,130,000,000 would not have been made, or it would have been made by investing funds derived from the sale of securities the issuance of which would have greatly increased the capitalization of the railways, including their funded indebtedness. Even after all this investment of earnings without capitalizing it, the funded indebtedness of many railways has proved too large during the present depression. A large majority have had to quit paying dividends, and

many have become bankrupt because of inability to earn interest on existing indebtedness. And yet this "cock-eyed" tax legislation in effect condemns the policy of making large investments from earnings that was followed from 1920 to 1930, and declares that instead railroad capitalization should have been increased much more than it was.

Taxation to Compel Over-Capitalization

The penalty tax on undistributed earnings would be bad enough if it did no more than perpetuate financial structures that have proved topheavy during the depression. But its harmful effects would go much further than that. To escape penalty taxation, almost every dollar invested in improving railway plant in future would have to be raised by the sale of securities. If all the money were raised by the sale of bonds, the railroads would be adding to the present topheavy financial structures for which they have been criticised, and obligating themselves to meet much larger interest charges and maturities in future depressions. The other alternative would be the sale of stock. But most railroad stocks are selling far below their par value at present and will continue to until net income available for dividends becomes as large again as it was during the years 1925 to 1929. About the only way left open meantime for financing of improvements would appear to be the issuance of stock of no par value for whatever price it will bring. In many cases this process would have the effect of "stock watering." Thus the railways would be forced by a government policy of taxation to resort to over-capitalizations—something for which they have been criticised more in the past than upon any other ground.

Putting a Premium on Bankruptcy

Modern American industry, including the railroads, was built very largely from invested earnings. The railways which rode through this depression were those which had prudently invested a part of their earnings in previous years, and hence owned much property against which no securities were outstanding. "A dollar for dividends and a dollar for re-investment" has been a policy which, carried out over many years, kept the plants of many railroads up-to-date and gave them a financial structure which enabled them to outride the recent economic holocaust. Now, if the New Deal has its way, this is all to be thrown overboard. No reserve may, without penalty taxation, be accumulated against the inevitable rainy day. A dollar of securities must be plastered onto each dollar's capital expenditure—to stay there (since it cannot be retired without penalty taxation) and cause financial difficulties at the next recession in business.

The revenue act further serves to perpetuate financial chaos and penalize orderly corporate financing by exempting companies in bankruptcy from these penalty taxes. Thus a premium is placed on delay in reorganizing the many companies in the hands of the courts. Is bankruptcy a condition which the government favors over orderly corporate functioning? If not, why should the latter be subject to this penalty tax and the former exempted from it?

Handicapping Railway Buying and Improvements

The long-run evil effects of this legislation will be much more serious to the railroads and railroad employees, and to manufacturers of railroad materials and their employees, than the immediate effects. Just now the railroads have before them the task of removing an accumulation of under-maintenance, which will necessitate greater employment and greater purchases from manufacturers. While the roads are catching up on their maintenance, the absence of normal additions and betterments will not be particularly noticeable. Maintenance, of course, is chargeable to operating expenses, and the new revenue act does not penalize such expenditures. Once deferred maintenance is made up, however, both railway employment and employment by concerns which manufacture railway materials will be seriously affected by hindrances to the financing of capital improvements.

It has often been observed that the business of manufacturing for the railways is "either a feast or a famine," that is to say, either the railways buy heavily or they buy next to nothing. This condition works a hardship on the manufacturers of railway equipment and materials and their employees because of the severe fluctuations it entails in their business and employment. It works a hardship on the railroads, because materials bought on a "feast or famine" basis cost more than those which are purchased steadily.

The new revenue measure, instead of ameliorating this condition, will intensify the booms and depressions in railway buying, and, consequently, the booms and depressions in manufacturing for the railways. This will follow because it will be possible for the railways to improve their property and escape penalty taxation only at such times as a good market exists for the sale of their securities, which is to say in times of good business. When business is depressed, and along with it the market price of securities, obviously it will not be possible for most railways to finance any capital expenditures by the sale of securities. Since the issuance of such securities is the only way in which improvements could be financed under this new tax legislation without penalty, almost no additions and betterments would likely be undertaken in bad times, and the violence of the swing of the business cycle in the business of manufacturing for railways would be greatly augmented.

"Reform" to Cause Bigger and Better Depressions

This revenue act is typical of much New Deal legislation—intended to correct an evil, by its amateurishness it brings consequences more undesirable than the condition it is designed to correct. Accumulations of surplus *have* been made by the managements of some

companies which were not desirable in the interest of stockholders. Earnings *have* at times been unwisely invested, when they should have been paid out to stockholders instead. But to attempt virtually to prohibit, by penalty taxation, the investment of any earnings whatsoever is quite another matter from discouraging overinvestment. If business is not to be allowed to accumulate reserves, then the next depression will be much worse than the one through which we are now passing.

Previous accumulation of reserves enabled business as a whole in the years 1930-1935 to pay out 32 billions more than it earned in those years. Its ability to make these excess payments out of the accumulations of previous years has greatly alleviated the evil effects of the depression. If this new legislation is effective no such accumulations can be made in future, and at the next depression there will be no surplus to cushion its damage. Can there be any possible social justification for penalizing a corporation in exact proportion as it tries to pay off its creditors, or accumulate reserves for emergencies, as this revenue act does? It is the kind of therapeutics which would give a patient an ounce of arsenic to cure a cold in the head.

To call such legislation "cockeyed" errs, if at all, on the side of understatement and undue elegance in choice of language. From the standpoint of sound economic policy it is insane, and no effort should be spared to secure its speedy repeal.

August Equipment Orders

Orders for three steam locomotives and 3,225 freight cars were placed for service on the American railroads during August of this year, thus further increasing the excess by which 1936 equipment purchases are surpassing those of the previous five years. In 1935 during the month of August, by contrast with the month just passed, no domestic locomotives or passenger-train car orders were reported in the issues of the *Railway Age* and only 100 freight cars were ordered. During the first eight months of this year 134 locomotives, 34,254 freight cars and 141 passenger-train cars (excluding articulated streamlined trains) have been ordered. This compares with 83 locomotives, 18,699 freight cars and 63 passenger-train cars for the entire year of 1935. The 3,225 freight cars ordered in August of this year brings the total ordered to date for this type of equipment to 34,254 which figure for these eight months of this year is larger than the yearly orders placed during any of the preceding five years back to 1930, when 46,360 cars were ordered during the twelve months of that year.

On September 1, there were inquiries for 775 freight cars and the purchase of 800 additional cars was proposed for domestic service; and inquiries were outstanding for 400 cars for export. The three locomotives for domestic service ordered in August, bringing the total to date to 134 (excluding power units for streamlined trains), is larger than for any entire year since 1930, with the exception of 1931 when 176 locomotives were ordered and 1934 when orders totaled 183. In addition, two locomotives were ordered for export in the past month. Inquiries are now pending for 24 locomotives and plans announced for three others for domestic service and for 23 for export.

There was no change in the passenger car orders during August, the total number ordered to date being 141 (exclusive of articulated units for streamlined trains). This compares with 63 cars ordered in the entire year 1935 and is likewise larger than the total for any whole year since 1930, with the exception of 1934 when 388 cars were ordered. Inquiries are outstanding for 9 passenger-train cars and for two lightweight trains for domestic service. In August orders were placed for 9,600 tons of rail, bringing the total this year to date to 522,585 tons as compared with 495,300 tons for the entire year of 1935.

July Earnings

Complete totals of railway revenues and expenses for July show that in that month net railway operating income was 129 per cent greater than in July last year, and that, for the seven months, net operating income was 35 per cent above the same period in 1935. Operating revenues in July totaled $349,743,963, showing an increase of 27 per cent over July, 1935, and were the greatest attained in this month since July of 1931. Net railway operating income in July, 1933, was slightly greater than in July of this year, but in that month three years ago operating expenses were only $194,925,735 as contrasted with $248,365,852 this year.

That is to say, the railroads in July this year spent over 43 million dollars more for higher wages, greater employment, more materials and supplies, and higher taxes than they did in the last previous mid-summer month when their net earnings were comparable to those of July this year. Apart from July, 1933, when business was still catching up from the spurt which it experienced following the bank holiday—which improvement was not sustained—it is necessary to go back to 1930 to find a July when net earnings exceeded those of July this year.

In July last year the railroads spent $218,022,449 to meet the costs of operation. In July this year, these expenditures were increased to $248,365,852. That is to say, while earnings for the benefit of railway owners and creditors increased by some 35 millions from July last year to July this year, expenditures for labor, materials and taxes increased by almost the same amount. Railways become larger employers of labor, better customers of other industry and larger payers of taxes in as great, or sometimes even greater, proportion as their patronage increases.

A.A.R. Public Relations Program Now Under Full Steam

Comprehensive effort launched for better public understanding of railroad progress and achievements

WASHINGTON, D. C.

THE Association of American Railroads this week announced the organization of its expanded public relations staff, the purpose of which is to enlist the co-operation of the railroads in an extensive long-range campaign to create a new public interest in the railroads, looking to a better understanding and appreciation of actual accomplishments in the railroad field by demonstrating that the railroads are doing a much better job than most people realize.

Part of the organization has been functioning for several months under a general policy first approved by the member roads at the association's annual meeting last November, by a resolution unanimously adopted authorizing the board of directors to arrange for such a program, which has been in progress of gradual development since then. Plans for a broad program of public relations work, including a national advertising campaign, were then prepared and were adopted in principle by the board of directors on April 24. After reference to the executive committee the general plan was confirmed at a member meeting on May 28, and although several important details were not settled and approved by the executive committee until later, the advertising program was begun in June.

Robert S. Henry

Holcombe Parkes

All Photos Blank & Stoller

The Association Staff

The association's public relations staff is headed by Robert S. Henry, assistant to the president. Holcombe Parkes, manager of the advertising department of the Norfolk & Western, has been appointed associate director of public relations. William E. Hall, who has been publicity representative of the association, has been appointed manager of the Information Section. H. F. McLaury, advertising manager of the Chicago, Burlington & Quincy, has been appointed manager of the Advertising Section. B. E. Young, chief clerk of the magazine and advertising departments of the Norfolk & Western, has been appointed manager of the Railroad Section, and an appointment is still to be made of a manager of the Public Section.

This staff is to work in close co-operation with the Committee on Public Relations of the Eastern Railroads and the Western Railways' Committee on Public Relations, as well as with the public relations officers of the several railroads, the American Railway Magazine Editors' Association, the American Association of Railway Advertising Agents, and the American Railway Development Association. It will also have the aid and advice of an advisory committee including representatives of the regional committees and advertising and public relations officers of the individual roads.

Objectives of the program have been outlined in a pamphlet entitled "A New Era For The Railroads," of which half a million copies have been printed and distributed by the association, principally among railroad employees, in part as follows:

"Railroads are faced with the question: How can we *interest* people—how can we *convince* them that the railroads are doing all that can be done to improve their product of transportation and could do even more if

given a fair opportunity? How can we *show* them that accomplishments in the railroad field as just as much of a challenge to the imagination, that they show the same evidences of resourcefulness and that they reflect the same applications of the latest discoveries of science which have won applause for other industries and have fascinated people with their progress?

Purpose to Make Public "Rail Conscious"

"Following that line of reasoning it is natural to conclude that actual achievements in the railroad field, if impressed upon the public consciousness again and again, would gradually build up the conviction that the railroads *are* an enterprising and essential part of American life and that they *are* doing all in their power to keep abreast of the times. So, an advertising campaign has been launched by the Association of American Railroads, with the co-operation of the individual railroads in their own territories. The purpose is to make the people of the United States again railroad *conscious*—not simply rail-minded, but *rail conscious*—to bring them to a full knowledge of just what the railroads mean to them individually and to the country as a whole. The advertising campaign will demonstrate to the public that the railroads are doing an amazingly better job than most people realize; and that they are justly entitled to relief from such legislation, regulation and taxation as now prevents them from meeting other forms of competition on equal terms.

"The advertising campaign, however, is just one phase of the great task that has been undertaken. To put that part of the campaign across, and to do the whole job of remaking popular understanding of the railroads, challenges the energies of *every officer* and *every employee* of every railroad in the country. It cannot be done by appeals for sympathy or gratitude for what the railroads *have done,* but only by giving to the public, constantly, concrete evidences of railroad enterprise, resourcefulness and eagerness to serve.

"That can best be done—no matter what the Association's activities may be—by the word-of-mouth contact of railroad people with their friends and neighbors. The biggest thing of all is that railroad people should know the great story of railroads in America and their efficiency and enterprise today, and should communicate that story to those with whom they come in contact. It is not a story of complaint and repining. It is a story of progress and achievement. Railroad people have every right to be proud of our railroads and their service, and every reason to keep that service good, to make it better—and then to tell the world about it."

Throughout all consideration of the program has been a recognition of the manifold problems of the railroads pressing for solution, their need for more traffic, for relief from the rising tide of regulatory legislation and taxation, for an opportunity to compete for traffic on even terms with other carriers, and for greater confidence on the part of investors, and the occasional threat of government ownership. The theory of the campaign, however, is that the first thing to be done is to bring about a better public understanding of the railroad situation.

Intelligent Enthusiasm of Railroad Men Essential

It is not expected that this job can be accomplished at once or in a year but the task is being faced with the idea that it is one challenging the energies and invoking the co-operation of every executive of every railroad and ultimately every employee of every railroad. An important part of the program, therefore, is to arouse the intelligent enthusiasm of everyone in railroad service, a spirit that cannot be created by executive order but one which it is hoped that railroad officers may be able to foster on the part of others by exhibiting it themselves by their every word and deed. In broad outline the job confronting the railroads has been described as to—

Sell your organization,
Sell your employees,
Sell your security holders,
Sell your customers,
Sell the public.

The general plan of the campaign adopted is largely based on suggestions made in a comprehensive report prepared for the association by Arthur Kudner, Inc., a New York advertising agency which is also handling the advertising, but has been revised somewhat in accordance with numerous suggestions offered by public relations officers of the individual railroads at various meetings.

Some of the suggestions of the report are, however, not being seriously considered at this time, while others are being given further study. The approved program recommends 25 projects and 13 services. Although organization of the association staff is far from complete, 11 of these projects have been started and 8 of the services are in operation.

The first step recommended was the organization of

William E. Hall

H. F. McLaury

B. E. Young

an adequately staffed public relations department for the Association of American Railroads. It was decided that the work should be conducted as a direct function of the president's office under the direction of Mr. Henry as assistant to the president.

As a next step recommendations were made for the reinforcement of the public relations departments of the separate railroads, with an organization for the larger roads closely paralleling that recommended for the association. It is understood that these recommendations have made a definite impression and are being seriously considered by a number of roads, several of which have recently reorganized their public relations set-ups. Whatever the form, makeup, or designation adopted by the individual roads for these departments, the essential need emphasized was that for a tangible recognition of the importance of public relations and related activities.

The third step dealt with methods for spreading the concept of the program among the personnel of the railroads and a scenario has been prepared for a slide-film talking picture presentation outlining the program to be shown to all railroad officers and employees at meetings throughout the country.

Another step was the adoption tentatively of the slogan "Safety First—Friendliness Too," which is being used in all A.A.R. advertising. The "safety first" drive enlisted the co-operation of both the employees and the public with brilliant results and it is believed that by linking with this "Friendliness Too" the railroads will imply that they can offer a standard of courtesy on a par with their safety record.

Plans for extending to railroad stockholders a clear understanding of what steps the railroads propose to take to better their position are to be undertaken by the individual railroads. The association headquarters has a consolidated mailing list of 700,000 names, closely paralleling stockholder and security holder lists, so far as the type of person reached is concerned.

The railroad employees' magazines are co-operating in broadcasting the new railroad story by means of editorial comment and reproductions of the association's national advertising. A series of "Amazing But True" facts, dealing with examples of modern enterprise or odd bits of information about the railroad industry, is being prepared for distribution to employees with their pay checks. Similar material is also being furnished to newspapers and so far has been well received.

Close Liaison With Individual Railroads

With the aid of the men assigned to co-operate with the association in these activities, a complete survey of the possibilities for effective circulation of association advertising on each road has been undertaken by the association staff. An advertising service to supply all the railroads with all the association advertising material that can be used effectively has been established and individual roads are placing this advertising in on-line newspapers to provide as complete coverage as possible. This service supplies a series of moderately-sized newspaper advertisements in plate or mat form, consisting of smaller editions or adaptations of the magazine advertisements capable of being individualized to the needs of each particular line. Another feature of this service consists of supplying the roads with small "boxes" or panels, dealing with some phase of the association campaign, to be included as a secondary part of advertisements prepared by the individual roads. The placing of these advertisements and the manner in which they are handled is, of course, entirely optional. A series of window displays has also been developed for the use of the individual roads.

Through the Information Section, the association is making public a greater amount of news and interesting features about the railroad industry, and is giving it wider dissemination than ever before. In addition, a service to supply railroad photographs to the press, magazines, and advertising agencies has been established at the association headquarters.

Growing interest in railroad and transportation subjects is indicated by the greatly increased number of requests received by the association for information on these subjects on the part of school teachers and pupils. Anticipating the possible need of providing special material to answer such requests, the association is making inquiry of educational and library authorities as to the character of material on the economics, history, and romance of rail transportation which is considered desirable for such distribution.

National Advertising Program

The advertising copy that has been prepared is designed to register the kind of impression that will evoke admiration and win friends for the railroads by affirmatively emphasizing their accomplishments, omitting anything in the nature of an appeal for sympathy. This key-note was struck in the first of the series of advertisements in the words of the veteran locomotive engineer: "We're doin' O.K., buddy." This phase of the program has been described as "only the eighth of the iceberg which shows above the water," while the activities of the individual railroads and employees is looked on as the major part of the program.

Three of the series of advertisements being sponsored by the association have already appeared in June, July, and August, while a fourth has been scheduled for publication in September and a fifth for October. Others have been prepared or are in course of preparation. These advertisements have been run in some 38 publications, including national weekly and monthly magazines, national and sectional farm papers, and the railroad labor publications.

The first of the series was that in which the old engineer was shown waving from his locomotive cab with the greeting: "We're doin' O.K., buddy," followed by the statement in the body of the "ad" that "In these homely words you hear expressed the self-reliant spirit of one of the foremost industries of the nation, the American railroads." In the text the public was invited to look around and observe the evidences of their progressiveness and efficiency and the two-page spread included two "boxes," one with the caption "Did You Know," followed by a series of interesting facts about increased railroad efficiency, and another headed "Pioneering Still Goes On," mentioning the research activities of the railroads.

The second advertisement, captioned "This is news, even to me," showed two railroad employees reading a magazine paragraph quoting the Department of Commerce as saying that "It costs more to cart four boxes of grapefruit across Manhattan Island than it does at carload rate to ship a box from Florida to New York by rail." This included another "box" headed "Go Places —Now—By Train," referring to the new low passenger fares and the safety of railroad travel.

The third of the series, with the caption "Ready—As America goes forward," was illustrated with a photograph of a stretch of perfect track, and emphasized that betterments on railroad practice and equipment will enable the American railroads to move ahead as America recovers and to transport, adequately and reliably, the tremendous tonnage required by a recovering nation.

The fourth advertisement, to be used this month, em-

phasizes the safety of railroad travel, with a picture of an elderly lady comfortably knitting while "traveling on the Safest Carrier in the World."

Among the achievements of the railroads that are being emphasized in the advertising and other features of the campaign are: The speeding up of freight trains by 43 per cent in recent years; improvements in passenger train schedules; air-conditioning which makes a railroad passenger car today "the cleanest, quietest, most comfortable way to travel"; the safety of railroad travel —"you are far safer on a railroad train than you are in your own home"; the large expenditures of the railroads for research, new and heavier rails, new construction, and maintenance; the economies effected in the use of fuel; improvements of brakes and couplings; increased power of locomotives; the carrying of freight at rates averaging less than a cent a ton a mile, etc.

National Campaign Supplemented by Local Newspaper Advertising

The advertising policy adopted contemplates that the association concentrate its advertising for the present in magazines of national circulation and that the individual railroads do their part in co-ordinating their local newspaper advertising with the association's national effort in order to localize the program, employing their concentrated territorial coverage to exploit the specific services of specific lines and adopting as much of the flavor of the association's message as possible. In accordance with this policy many of the individual roads have increased their advertising programs and both the eastern and the western roads have put into effect plans for a considerable amount of joint advertising in local newspapers. Many of the railroads have used adaptations of the association advertising copy in their own names.

Up to date the association has produced and distributed 183,000 window-card, counter-card, bulletin board poster, car-card and wall poster reproductions of the first three advertisements and the first advertisement has been used by 17 roads in employees' magazines, by 9 in dining-car menus, by 24 in passenger timetables, by 65 in window cards and counter cards, and by 71 in bulletin board posters.

Some of the ideas proposed in the Kudner report which are to be given later consideration are: Adoption of an annual "Railroad Show"; development of a traveling display to be exhibited in large stations throughout the country; extension of and dramatization of railroad research work; publication of a national railroad magazine; development of motion pictures dealing with railroad history, research, progress, and other phases of modern railroading; enlargement of speakers' bureau activities; and plans for establishing better contacts with organizations of shippers, farmers, manufacturers, etc.

The Personnel

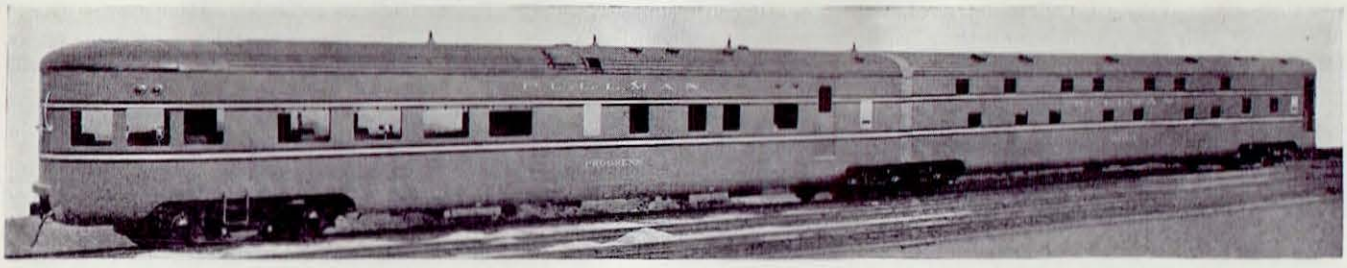
Robert S. Henry, assistant to the president of the Association of American Railroads, in charge of public relations, was born at Clifton, Tenn., on October 20, 1889. He attended the public schools at Nashville, Tenn., Wallace's University School, and later Vanderbilt University (B.A., 1911; LL.B., 1910), and Queen's College, Cambridge. He was engaged in newspaper work in Nashville from 1907 to 1913, was secretary to the governor of Tennessee from 1913 to 1915, and practiced law in Nashville from 1915 to 1921 except for the war period. He was in the military service from May 12, 1917, to July 1, 1919, and saw service in France. He was discharged as a captain of field artillery and now holds the commission of lieutenant-colonel field artillery reserve. From 1921 to 1928 Mr. Henry was director of public relations for the Nashville, Chattanooga & St. Louis and he was then assistant to the vice-president of that company from 1928 to 1934, when he became assistant to the president of the A.A.R.

Holcombe Parkes, associate director of public relations, was born at Mt. Vernon, Ill., on March 14, 1896. He was educated at the University of Illinois. After working between school sessions with railroads and newspapers in minor capacities he served in the French army during the World War and was later a lieutenant, infantry, in the United States army. Between services in the two armies he was with the Associated Press and from 1919 to 1923 he was associate editor of the *Railway Age,* also being employed in publicity work for the western railroads. In 1923 he was employed by the Norfolk & Western to establish and edit the Norfolk & Western Magazine and in 1928 he was appointed manager of the company's advertising department. In January, 1936, his services were loaned to the A.A.R. to act in an advisory capacity on development of the association's public relations campaign and on July 1 he was granted a leave of absence to become associate director of public relations of the association, continuing his connection with the N. & W. as an advisor on advertising, publicity, and personnel activities. He was president of the American Railway Magazine Editors' Association, 1928-1929, and has been vice-president of the American Association of Railway Advertising Agents since 1932.

William E. Hall, manager of the Information Section of the association, has been publicity representative for the association and its predecessors, the Association of Railway Executives and the American Railway Association, since 1920. He has had a wide and varied experience in newspaper work on various newspapers in Indianapolis, Detroit, and Terre Haute, and also with various press associations in Chicago, Pittsburgh, and Washington. In 1912 he reported Theodore Roosevelt's campaign trips for the United Press. Later he was with the International News Service for two years as wire editor at Chicago and bureau manager at Pittsburgh, and with the Associated Press for six years, most of the time in Washington, where for three years he reported the proceedings of the United States Supreme Court. He was also assigned for a time to the White House and the United States Senate.

Herbert F. McLaury, who has been appointed manager of the Advertising Section of the association, has been advertising manager of the Chicago, Burlington & Quincy since September 16, 1925. He was born at Burlington, Ia., September 12, 1890, and entered the service of the Burlington in 1909 as clerk in the office of the division passenger agent at Burlington. In 1911 he was transferred to the general passenger department at Chicago and he has held successively the positions of claim clerk, chief of travel bureau, secretary to passenger traffic manager, chief claim clerk, assistant chief clerk, passenger rate clerk, and chief clerk of the advertising department.

B. E. Young, who has been appointed manager of the Railroad Section, was born at Martinsburg, W. Va., on April 18, 1905. He entered railroad service in April, 1917, as a messenger in the office of the general claim agent of the Norfolk & Western at Roanoke, Va. After holding various positions on this railroad he was appointed in August, 1929, to the position of chief clerk in the magazine and advertising departments. He also served as librarian of the Norfolk & Western Transportation Library and as publicity secretary of the Roanoke Railroad Employees and Taxpayers Association.



Pullman Two-Unit Articulated Sleeping-Observation Car

Pullman Tries Two-Unit Articulated Sleeper-Observation Car

Facilities include "duplex" bedrooms, double bedrooms, a compartment, buffet and observation-lounge

THE Pullman Company has placed in service a lightweight streamline articulated two-unit car so constructed that it can be used in a train with car units of present standard type. The car complete, with Cor-Ten steel in the body construction and predominately aluminum alloy in the interior finish, weighs 223,700 lb. The first unit, which is fitted with single rooms of the duplex type, is named "Advance" and is 74 ft. 6 in. in length from front coupler face to articulating center plate. The rear body unit, named "Progress," is partly devoted to room facilities, with a buffet-observation-lounge at the rear end. This unit is 75 ft. 1½ in. in length from articulating center plate to rear coupler face, making the overall length of the two-unit car 149 ft. 7½ in. The bodies are 9 ft. 7 in. in outside width and are 13 ft. 5 in. in overall height above the rail.

Looking into Two Upper Rooms in the First Unit of the Articulated Pullman—The Upper Floor Is Reached by Three Steps

The two body units are carried on four-wheel trucks at the ends and on a six-wheel truck at the articulation point, spaced 64 ft. between centers. The four-wheel trucks are of the non-equalizer type similar in suspension to those employed on the recently built streamline trains for the Union Pacific. The six-wheel truck is fitted with drop equalizers. The journals are equipped with SKF roller bearings.

Livery of Gunmetal, Black and Gold

The exterior finish of the unit is of gunmetal shade, set off by black and gold striping above and below the windows. A feature of the exterior contour is a skirt below the underframe. This serves as a smooth cover over the underframe, lighting batteries, water tanks, etc., visible on the ordinary standard car.

The Advance contains sixteen rooms, fourteen of which are equally divided between single rooms at the floor level and others reached by three steps up from the aisle. In one of the illustrations it will be seen that the upper-room corridor doors are set back 12 in. from the face of the lower-room corridor partitions. This recess provides for the three steps by which the upper rooms are reached. The transverse sofas in the upper rooms set back over the sofas in the lower rooms, thus limiting the amount of floor space required for the upper rooms to that in front of the sofas. The height of the floors in the upper rooms is 3 ft. ⅞ in. above the corridor.

In the lower rooms the ceiling over the portion of the room in front of the sofa is 7 ft. 6½ in. high. Luggage lockers utilizing the space above this ceiling open into the upper rooms through doors in the partitions above the backs of the sofas. In each lower room there is a space under the sofas and also an overnight rack. The lower rooms are equipped with small lockers from which the porter can take and replace the shoes of sleeping passengers. The occupants of the upper rooms place theirs on the stairway.

The duplex arrangement is the result of experiments

during the last four years. In January, 1932, two sleeping cars, the "Voyager" and the "Wanderer," containing four standard sections and eight duplex rooms, two upstairs and two downstairs, all of the bedroom type, the beds in which became sofas by day, began operation out of New York City. These cars are now in regular service between New York and Pittsburgh.

Several "Duplex" Experiments

In May, 1933, the second duplex experiment, consisting of two cars, the "Eventide" and "Nocturne," with longitudinally placed compartment-type rooms on two levels, were placed in a night train between New York and Washington, where they are still operating.

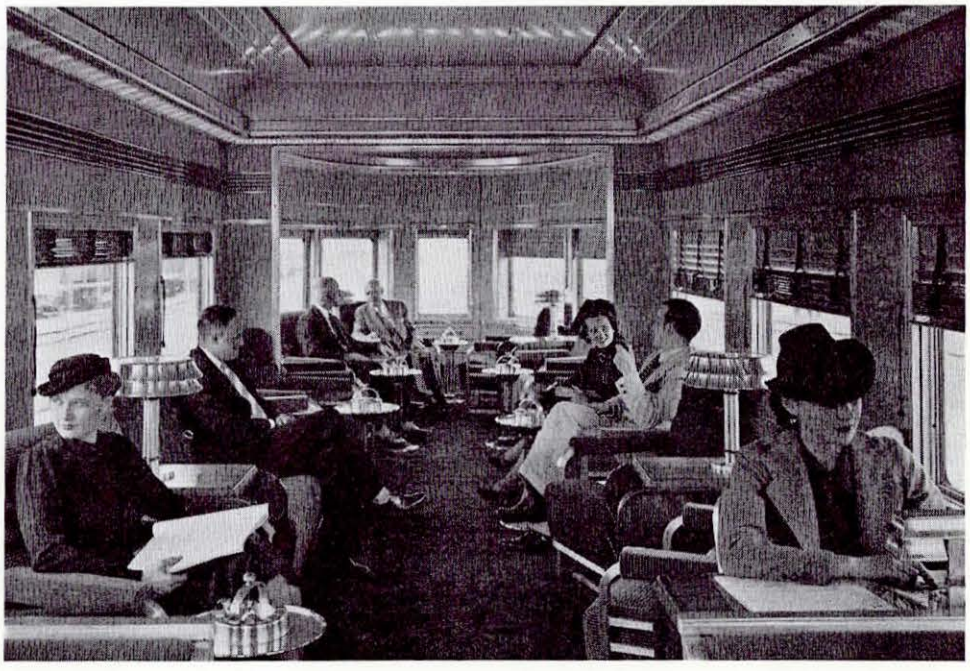
In the new double-unit car a return is made to the transverse bedroom type of accommodations, with a daytime sofa that is convertible into a bed. There are individual toilet facilities, with lighting, heating and cooling regulated in each room, the latter made possible by the Pullman mechanical air-conditioning system. Six of the downstairs duplex rooms are en suite, a sliding partition transforming each pair into a single large room. Two pairs of the upper rooms have communicating doors. The rooms in the two cars have been provided with many facilities for the added comfort and convenience of passengers. There is an aluminum table that folds against the wall which may be used for writing, serving meals and other purposes. Arm rests are provided which fold into the backs of the sofas when not wanted. In the double bedrooms there is a fabric holder with compartments for magazines, eye glasses and a watch or a small alarm clock.

The second unit, the Progress, contains a compartment and three double bedrooms, two of which are en suite. At the head of the observation-lounge is a buffet containing a broiler, coffee urn and ice-cooled refrigerators. Monel metal is used in the broiler. The observation-lounge occupies practically half of this body unit. The furniture is all of modern design with tubular aluminum frames, and the upholstery is in the new shades of blue, terra cotta, brown and rose.

There are two sections in the observation end of the car. At the rounded end is an observation parlor seating six, while the lounge seats 20 and has sofas and section seats with tables. The ceiling is in light ivory, the walls

A Lower-Level Room

a soft gray-blue and the base a darker shade of the same color. Around the walls runs a panel in opalescent brown lacquer, above which is concealed a trough containing the electric lights. The lighting is indirect and is adequate for those desiring to read at night. The windows of the observation room have fabric window shades of blue with horizontal silver striping. In the lounge end are venetian blinds of satin aluminum finish. Some of the bedrooms in both cars have the blue color scheme noted



The Spacious Lounge and Observation Rooms of the New Two-Unit Pullman

in the observation-lounge, the upholstery being a rose color and the carpets of a rust tint. In other rooms the upholstery is in green, with the decorating in graduating shades of tan.

The two-unit was designed and produced by the Pullman-Standard Car Manufacturing Company for the Pullman Company and will be experimentally operated in various sections of the country to demonstrate the value of such units as a nucleus for streamline trains. During last week the unit was in operation on the New York Central's Twentieth Century Limited. This week it is on the Pennsylvania's Broadway Limited. Thereafter it will be placed on other trains in other sections of the country.

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading in the week ended August 22 totaled 734,973 cars, a decrease of 1,524 cars as compared with the week before, but an increase of 109,199 cars as compared with the corresponding week of last year. As compared with the week before decreases were reported in the loading of coal, grain and grain products, and ore, but all commodity classifications except grain showed increases over last year's figures and miscellaneous freight increased 56,046 cars. The summary, as compiled by the Car Service Division of the Association of American Railroads, follows:

Revenue Freight Car Loading

For Week Ended Saturday, August 22

Districts	1936	1935	1934
Eastern	145,847	127,761	126,654
Allegheny	148,915	117,168	109,073
Pocahontas	51,257	44,463	41,075
Southern	99,549	85,360	81,038
Northwestern	122,570	101,422	96,911
Central Western	109,121	99,239	98,945
Southwestern	57,714	50,361	53,221
Total Western Districts	289,405	251,022	249,077
Total All Roads	734,973	625,774	606,917
Commodities			
Grain and Grain Products	39,806	40,457	36,703
Live Stock	15,936	15,049	32,309
Coal	116,867	99,910	101,995
Coke	8,545	5,135	4,234
Forest Products	37,085	30,765	21,560
Ore	54,589	36,085	27,745
Merchandise L.C.L.	166,055	158,329	160,734
Miscellaneous	296,090	240,044	221,637
August 22	734,973	625,774	606,917
August 15	736,497	614,005	601,788
August 8	728,293	582,077	603,968
August 1	747,551	595,297	612,660
July 25	731,062	595,572	610,042
Cumulative Total, 34 Weeks	22,363,731	19,802,754	20,212,971

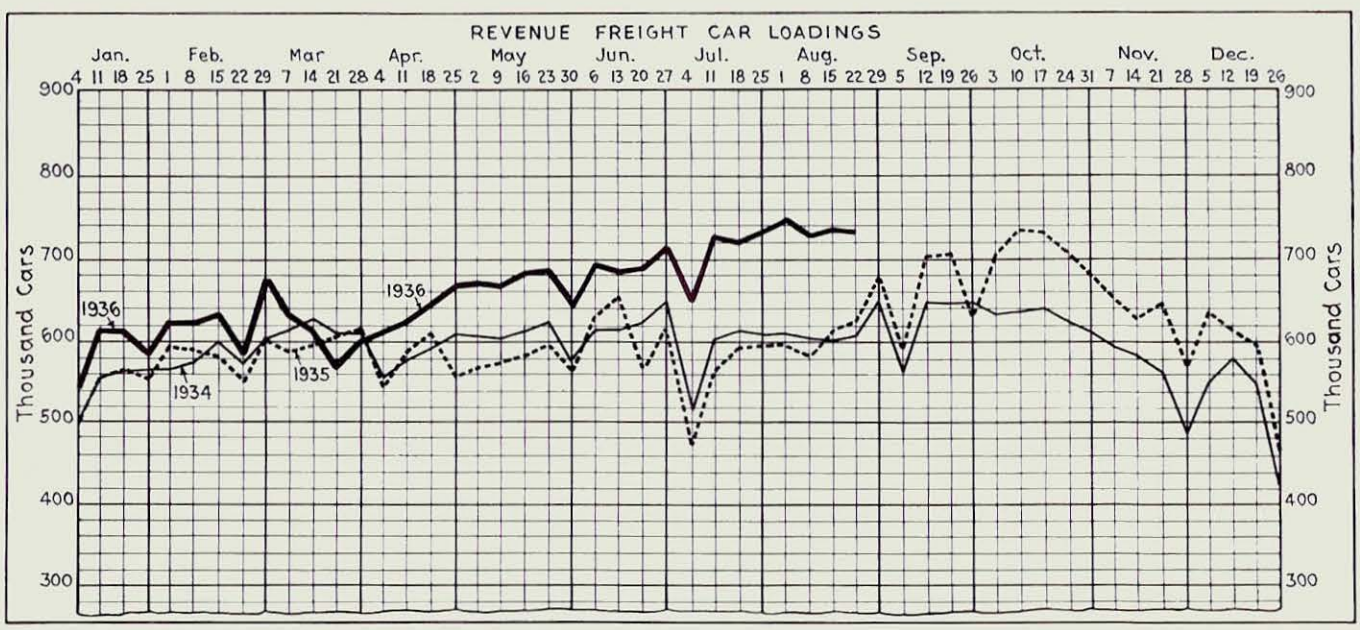
Car Loading in Canada

Car loadings in Canada for the week ended August 27 jumped to 52,468 cars from 50,368 cars for the previous week and 43,847 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

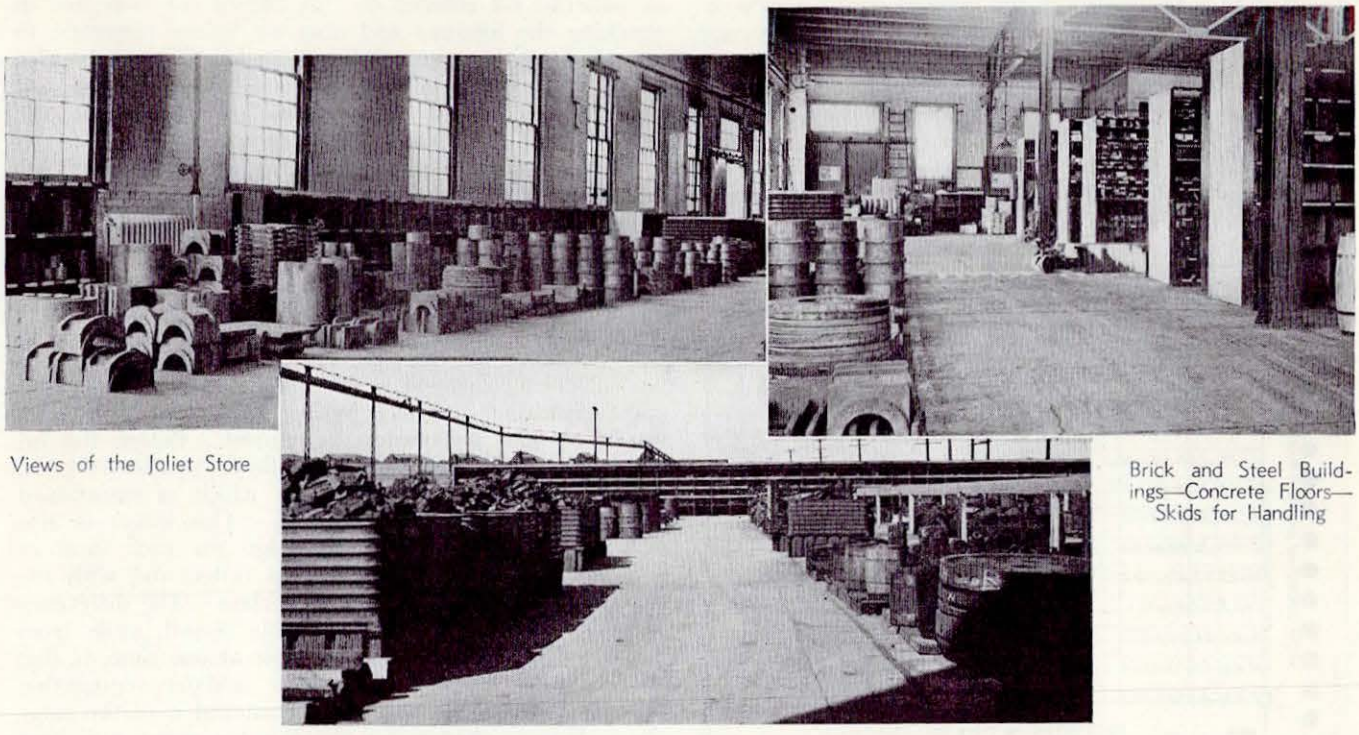
	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
August 22, 1936	52,468	21,285
August 15, 1936	50,368	20,680
August 8, 1936	46,036	21,553
August 24, 1935	43,847	18,034
Cumulative Totals for Canada:		
August 22, 1936	1,502,455	784,308
August 24, 1935	1,458,511	726,558
August 25, 1934	1,442,922	752,802

* * *

A. A. R. PUBLICITY "FILLERS."—One of the many efforts being put forth by the newly organized public relations department of the Association of American Railroads is the issuance to newspaper editors all over the country, at frequent intervals, of short paragraphs of interest about the railroads and their accomplishments. The thought is, of course, that the items will appeal to the editors and that many of them will be printed—thus the newspaper-reading public will see favorable mention of the railways in print much more frequently in future than they have in the past.



Visible Records for Storekeeping



Views of the Joliet Store

Brick and Steel Buildings—Concrete Floors—Skids for Handling

6,000 items indexed in five handy volumes—Prices and consumption at a glance

THE Elgin, Joliet & Eastern, with 434 miles of lines, comprising what is commonly known as the Outer Belt Line of Chicago, has its principal storehouses for material used in operating and maintaining freight equipment* located at Joliet, Ill., and Gary, Ind., where the major repairs to equipment are made. Light as well as heavy or classified repairs are made to locomotives and cars at Joliet, 35 miles west of Chicago, and light repairs are made at Gary.

All material and stationery required for use at the outlying stations on the Joliet division are furnished through the Joliet storehouse by means of supply cars. These cars are loaded once a month and forwarded over the division on local trains, and the supplies are distributed as stops are made at the individual stations. Material required at the outlying points on the Gary division is supplied almost entirely by truck deliveries, because of the close proximity of the points requiring material. At both points, material is stored in sections conforming to A.A.R. material classifications, and modern material-handling equipment is employed to deliver the materials to the job or shop as required.†

* The E. J. & E. does no passenger business.

The Heart of E. J. & E. Storekeeping—A Visible Stock Record in Five Volumes

How Supplies Are Replenished

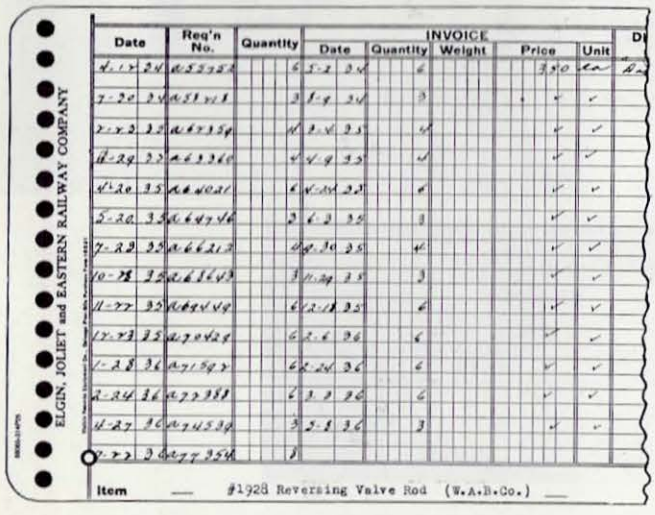
The rolling stock consists of 252 locomotives and 11,185 freight cars. During 1935, the stores handled approximately $1,540,855 of materials for this equipment and for miscellaneous needs, with a final inventory of $549,451, exclusive of fuel, ties, rail and scrap.

In contrast with the usual practice, the E. J. & E. does not maintain stock books for use in its store rooms, and all orders for replenishing store stock originate in the office of the general storekeeper. Once each month a mimeographed form, listing all the items in one class of material, is sent to the Gary store where the form is marked to show only the quantity of each item in stock and on order. This form goes direct from the Gary store to the Joliet store where the same operation is repeated. It is then returned to the general storekeeper's office where the quantity to be ordered for both stores is determined from a continuous office record showing the average monthly consumption and the trend

† For a description of these material handling methods see *Railway Age*, April 30, 1932.

of consumption as well as any instructions governing the status of the items listed. The preparation of the forms for different classes of materials is distributed during the month to simplify and stabilize the work.

Orders for the material to be purchased are written direct from these forms in the general storekeeper's office by using a so-called purchase-order blank, one copy of which is a requisition on the purchasing department to purchase the material, while the original, when filled out with the name of the supply firm and the approving signatures, is the order on the supply firm to furnish the material, so that the order need not be rewritten by the purchasing department. Approximately 1,000 of


ELGIN, JOLIET and EASTERN RAILWAY COMPANY

Date	Req'n No.	Quantity	INVOICE Date	Quantity	Weight	Price	Unit	D
4-17-24		6	5-2-24	6		3.50	ea	
7-20-24		3	8-4-24	3		"	"	
2-23-25		4	3-4-25	4		"	"	
11-24-25		4	12-4-25	4		"	"	
4-20-26		6	4-24-26	6		"	"	
5-20-26		3	6-2-26	3		"	"	
7-23-26		4	8-30-26	4		"	"	
10-28-26		3	11-24-26	3		"	"	
11-27-26		6	12-18-26	6		"	"	
12-23-26		6	2-2-27	6		"	"	
1-28-27		6	2-24-27	6		"	"	
2-24-27		6	3-3-27	6		"	"	
4-27-27		3	5-2-27	3		"	"	
9-22-27		3						

Item — #1928 Reversing Valve Rod (W.A.B.Co.) —

Left Half of Typical Stock Record Sheet

these orders are prepared each month, and 25 per cent of them are filled in complete with the name of the firm with which the orders are placed, as determined from records furnished by the purchasing department.

Visible Index Speeds Work

While no stock books are used in the storerooms, a loose-leaf record is kept in the office of the general storekeeper, which is believed to be more useful for the E. J. & E. than stock books, as ordinarily understood, or even some of the systems which have been introduced as a substitute for stock books, because it is unusually compact and furnishes essential information not carried in stock books. It consists of five loose-leaf binders 16 in. in width, 19 in. in length, and 3½ in. in thickness, each containing a series of sheets measuring 6 in. in width and 14 in. in length, one sheet for each item of material. These sheets are ruled on both sides for the date and number of each order made for the material and the quantity ordered; also for an invoice record showing the date, quantity, weight, price and unit of measure; also for the rate of discount allowed, and for the number of each requisition for material disbursed and the quantity shipped. The quantity in stock is not shown. Separate columns are provided for each kind of information and the record is kept by starting at the top of the page and working down, line by line, until 27 lines are filled, when the operation is repeated on the reverse side. In this manner, confusion is avoided and it is possible to determine the quantity ordered and the quantity received and disbursed for any calendar period simply by adding up the figures in the proper column. The item and class number, the description of the material and the monthly average consumption are marked on the bottom edge of each sheet so that the sheets can overlap each other in the binders and show 35 items at one time.

From this record the amounts due on unfilled orders are determined for use in preparing new orders, and, as the orders are prepared, the quantities of each item of material are entered on this record for later use in checking the invoices and also for future reference in any study of the material that is made. The record also serves the purpose of an index of all orders placed and the unit prices paid. The sheets are arranged in the binders in A.A.R. classification order and each class is arranged in alphabetical or numerical order. The books, containing 6,000 items, stand on edge in a roller bearing case so that they can be withdrawn from either side; and with 35 items visible at one time, information can be posted in them or inspected rapidly.

Complete Record of Costs and Quantities

As invoices are received, they are first posted in the record and then passed to the invoice clerk for checking and verification. Vouchers are then made and forwarded to the accounting department. Before the invoices are filed away, however, they are also entered, item by item, in a stock ledger which is maintained primarily for accounting purposes. This ledger is also a loose-leaf record, with one page for each item of material, arranged in classification order, and with the sheets filed alphabetically in each class. The difference between this ledger and the visible record, aside from the fact that but one page is visible at one time, is that all like items are listed together without segregating them as to sizes, so long as the material is of the same class. Freight charges are also entered under each item together with the prices and the total value, including freight, and the combined total of all the materials in each class is checked each month against the balance sheets.

The same ledger is used to keep a corresponding record of disbursements, as reported on store material tickets or reports of material used in program work or for heavy repairs. These forms are priced each day in the general storekeeper's office, and at the close of each month a complete recapitulation of the quantities used and their cost is entered on the credit side of the ledger.

The stock ledger, as maintained, has been useful in obtaining information on purchases and consumption of material, adopting standards and policing the use of material, also in supplying the purchasing agent with such information desired for proposed contracts, as it furnishes a complete and ready record of quantities of specific material and its value.

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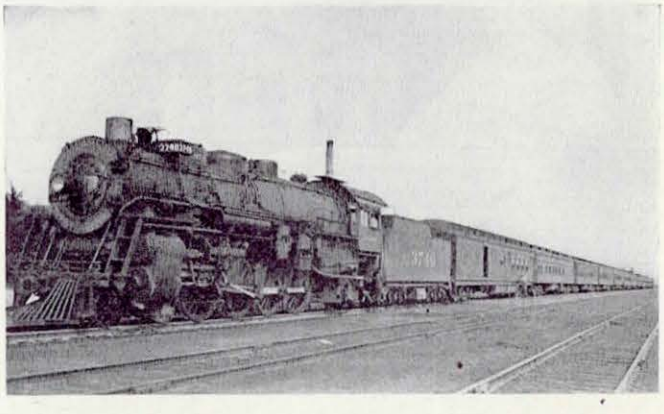


On the Atchison, Topeka & Santa Fe at Winslow, Ariz.

53 Miles of Railway Relocated in Ohio Flood-Control Project

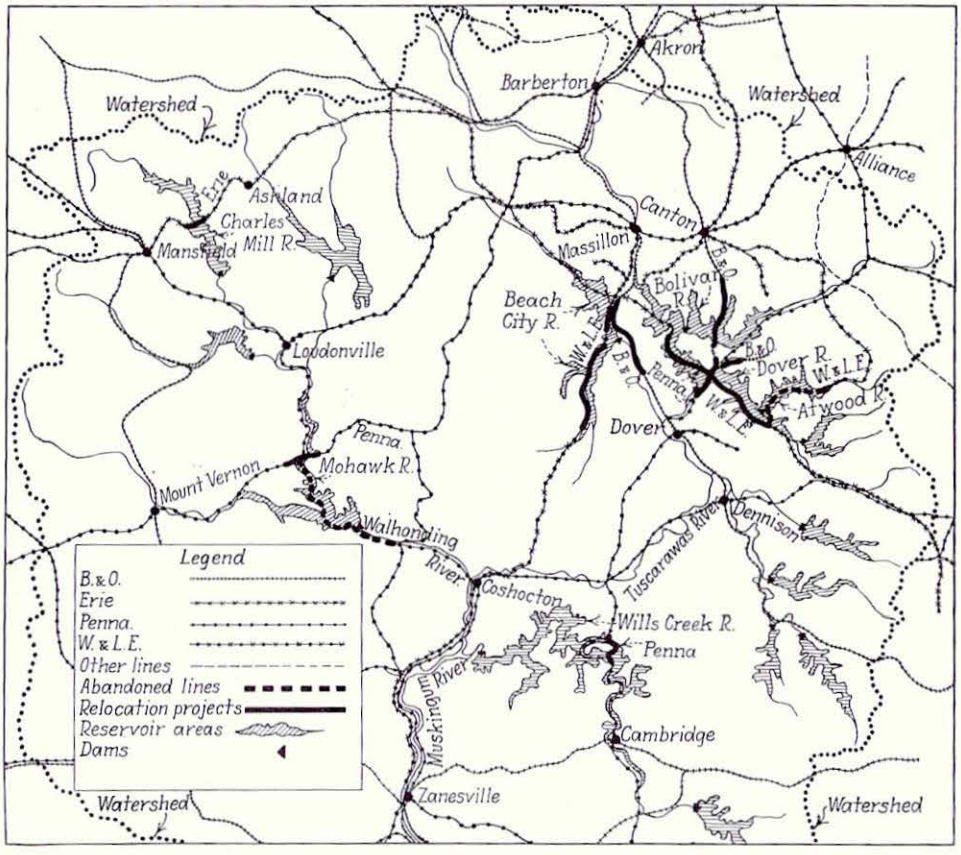
Rapid progress is being made on nine route changes required at flood reservoir sites in Muskingum valley

BY far the largest program of railway line construction that has been in progress during the last year is embraced in the relocations made necessary by the flood control work in the Muskingum valley in Southeastern Ohio. To replace railway lines that will be subjected to inundation by the system of reservoirs that is now being provided in the Muskingum drainage area, it is necessary to locate and construct nine individual relocations for four different railways, embracing 50.72 miles of line. Including 16.64 miles of sidings, the new roadbeds will accommodate 67.5 miles of track. In addition to some 4,750,000 cu. yd. of grading, this work involves 40,000 cu. yd. of concrete construction, 3,250 tons of structural steel, 24,000 lin. ft. of metal-encased concrete piles, 1,400 tons of reinforcing steel and 825 tons of cast iron culvert pipe, as well as several station buildings and an installation of water supply facilities. The railway construction will involve an expenditure of about $6,000,000.

Embraces a Large Area

The Muskingum valley drainage basin extends from Marietta on the Ohio river to within 20 miles of Cleveland on the north, 12 miles of Columbus on the west and 20 miles of the Pennsylvania state line on the east. It embraces about one-fifth of the area of Ohio and represents 23 per cent of the watershed drained by the Ohio river at Marietta (where the Ohio receives the waters of the Muskingum). Repeated destruction of property in the valley as a result of recurring floods had led to early consideration of flood restrictive measures. But the task proved exceedingly formidable, and an eventual realization that it did not lend itself to piece-meal attack by the individual communities affected led to the organization of the Muskingum Watershed Conservancy District on June 3, 1933, under the Conservancy Act of Ohio.

This plan provided for the financing of construction through the levying of benefit assessments against property in the district, but an application for federal assistance resulted in the allocation, in December of that year, of $22,090,000 of funds of the Public Works Administration to the Corps of Engineers of the United States War Department for the design and construction of flood-control and water-conservation reservoirs, and all other construction except the relocation of highways. The conservancy district assumed the cost of all land and rights of way required and the expense of the highway work, but the latter was later taken over by the state highway department, and the state also ap-



Part of the Muskingum Water Shed Showing the Reservoir Sites and the Railway Relocations

propriated $2,000,000 to aid in the acquisition of lands, leaving about $6,000,000 to be raised by the levying of assessments against property within the district. The total cost of the project is estimated at about $37,000,000.

Fourteen Reservoirs

As shown on the map, the project embraces 14 reservoirs located mainly near the headwaters of the various tributary streams. However, only seven of these affect railway property. These reservoirs, the railway lines involved and the mileages in each relocation are shown in the table. In addition to the 10 relocations, 2 lines were abandoned, and the relocation of 1.6 miles of another line was avoided by arranging for joint use of one relocation by two roads. The official plan also contemplated the relocation of 1.45 miles of the Pennsylvania's Marietta branch where the track is a few feet below water level in the Bolivar reservoir, but inasmuch as it is estimated that this line will not be flooded more than once in 100 years, a settlement was made with the railway in lieu of a relocation.

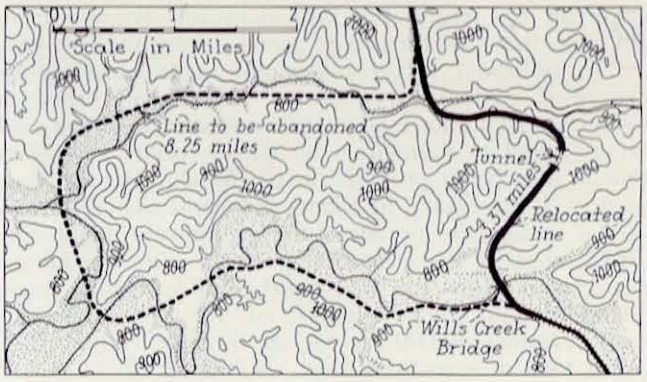
A general description of this railway project was presented in an article by Gilbert H. Friend, senior engineer and chief of the railroad section, U. S. Engineer office, Zanesville, Ohio, that was published in the *Railway Age* of December 28, 1935, page 851. As Mr. Friend's article included a detailed treatment of the extensive studies made in the selection of the routes for the various relocations, and discussed the problem of the adoption of construction standards satisfactory to the four railways involved, these phases of the work will not be reviewed here.

Character of the Relocations

As the sites chosen for the reservoirs were necessarily those that provided the maximum storage capacity for the least expenditure for dams, the terrain in the vicinity of the dams is generally characterized by deep valleys, often with steep side slopes, but with less pronounced differences in elevation and flatter slopes in the upper reaches of the areas that will be inundated. Consequently the character of the country encountered at the site of the several relocations is subject to wide variations.

In most cases, the procedure was to find support for the relocated line higher up on the valley sides, so that a considerable part of the construction is sidehill work. This is not true in all cases, however. For example, lines crossing the valleys have had to be raised on high embankments, and this expedient has been adopted also where a relocation providing natural support would have involved too wide a detour from the original location.

In general, the policy adopted in laying out and constructing the relocations was to select lines that will provide, as nearly as possible, the equivalent of the lines

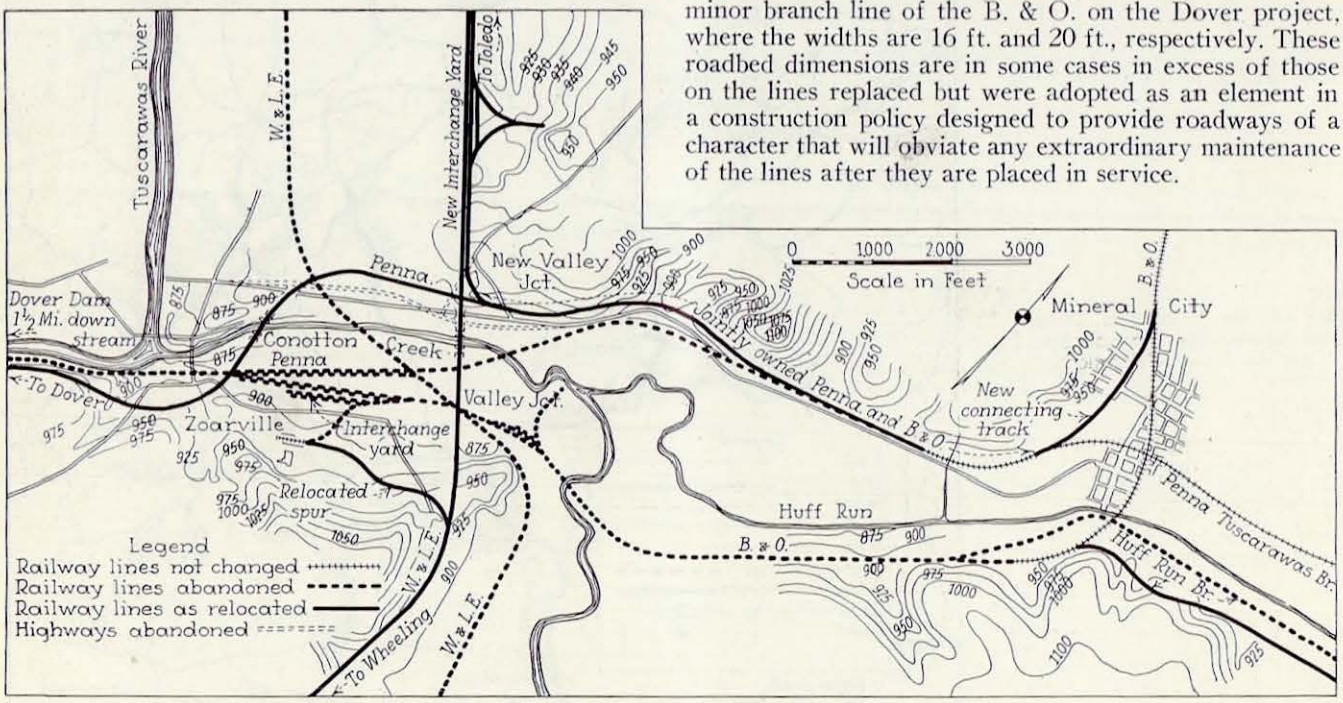


Map of the Pennsylvania Relocation in the Wills Creek Reservoir Area

replaced. It has been readily possible to avoid any grades in excess of the ruling grades on the lines affected and, in most cases, the distance and curvature on the new lines are less than on the old lines. The maximum degree of curvature on the new lines is four degrees, except one curve of five degrees in the Wills Creek tunnel, referred to later, and a curve of six degrees on the Wheeling & Lake Erie-Beach City relocation. The maximum grade is one per cent.

Avoid Extraordinary Maintenance

The roadbed width (single track) is 20 ft. on embankments and 26 ft. in cuts, except in the relocation of a minor branch line of the B. & O. on the Dover project, where the widths are 16 ft. and 20 ft., respectively. These roadbed dimensions are in some cases in excess of those on the lines replaced but were adopted as an element in a construction policy designed to provide roadways of a character that will obviate any extraordinary maintenance of the lines after they are placed in service.



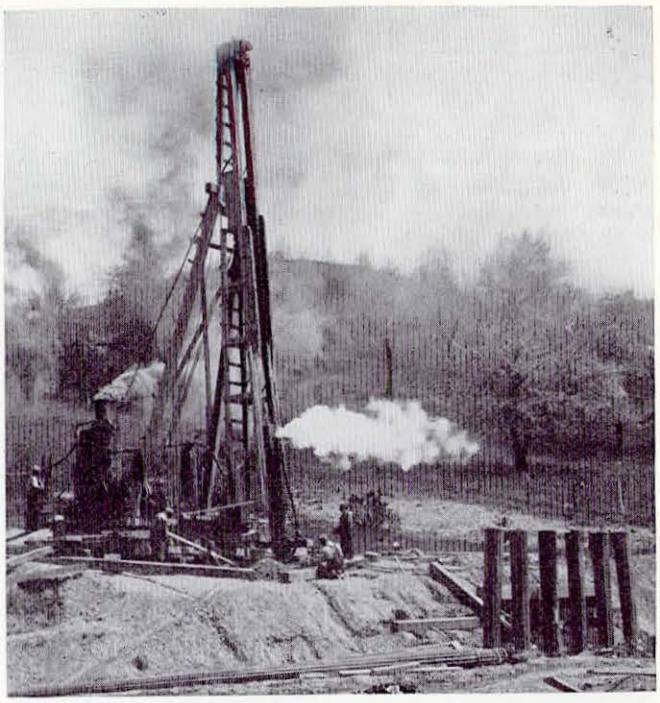
Map Showing the Relocations in the Vicinity of Valley Junction in the Dover Reservoir Area

At the beginning of the negotiations, the railroad companies were inclined to stress claims for extraordinary maintenance, which were based on the increased cost of maintaining newly-constructed roadbeds. However, this difficulty was largely removed by requiring that the embankments shall be constructed in one-foot layers and each layer thoroughly compacted by rolling with an approved type of power-driven roller. The specifications provide that if satisfactory compaction is obtained by the operation of tractor haulage and spreading equipment, the use of the roller may be dispensed with. As a matter of fact, the contractors have made extensive use of large capacity trucks, tractors and crawler wagons, including, also, some of the tractor-hauled LeTourneau carts, while bulldozers mounted on tractors are employed for spreading material. Excellent compaction is being thereby generally obtained without the use of special rollers. Because of these measures to insure solidification, no excess height was added to the fills to provide for shrinkage, although the width at roadbed level was increased one foot to allow for sloughing. A railroad crossing was provided with a concrete slab support under the ballast.

Character of Materials

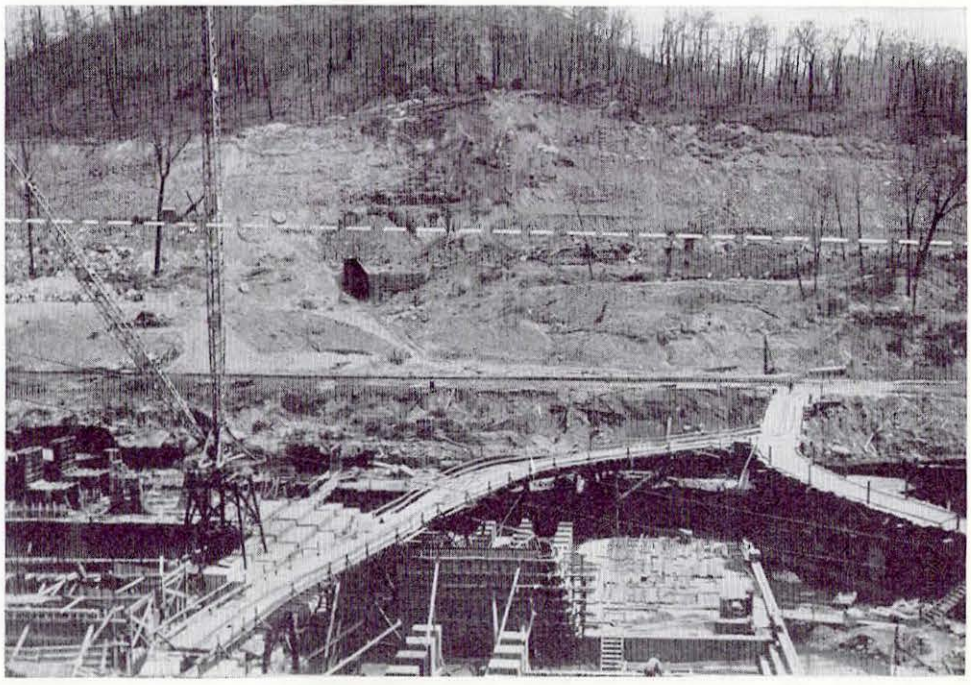
The materials encountered in the railway locations embrace everything from shales, sandstones and limestones of the carboniferous period to deposits of glacial sands and gravels in the bottoms of the valleys. Narrow seams of coal were exposed in not a few of the cuts. The hardest rock excavation was involved in the Wheeling & Lake Erie's Beach City relocation, where the rock is a hard sandstone not encountered on the other projects. Marked irregularity in the elevation of bed rock in the valley bottoms introduced wide variations in the foundations for bridge substructures. For example, two piers and one abutment of the Tuscarawas river bridge on the Wheeling & Lake Erie are on rock, while the other pier and abutment had to be supported on piles. Also, one crossing of Conotton creek afforded rock foundation, while another but a short distance away demanded pile foundations.

Most of the material excavated from cuts was of a nature that formed stable embankments. Slides in cuts introduced a much more serious problem. For example,



Driving the Fluted Shells for Cast-in-Place Concrete Piles

in the vicinity of the dam on the Pennsylvania's Dover relocation, where the new line was located in the steep side hill about 45 ft. above the old line, a slide developed shortly after excavation was started. Investigation disclosed evidence of an old slide and a lack of stability of the material up to the top of the hill. To meet this situation, shovels were cut in at the top of the slide to work progressively down to grade level in removing the unstable material, and it was found necessary to excavate about 75,000 cu. yd. of material outside the neat prism of the cut. Cuts are excavated to slopes of ¾ to 1 in rock and the firmer shales, 1 to 1 in the softer shales and 1½ to 1 in earth. As a rule, the quantities in cuts and fills were balanced, but on the W. & L. E. work referred to above, where the cuts were largely in rock, it proved cheaper to adopt an unbalanced profile so as to reduce the cut excavation and make up the deficiency in em-



A Construction View of Dover Dam—Grade of Pennsylvania Relocated Line Is Indicated by the Dotted Line. The Old Line Is Seen Below

bankment from borrow pits. The maximum depth of the cuts on the various projects is about 80 ft., while the maximum height of fill is about 50 ft.

Contract Work

All grading contracts were awarded on the basis of a single unit price per cubic yard, unclassified, with 3,000 ft. of free haul, bidders basing their estimates on test-boring records furnished with the invitations. As a matter of fact, under the exacting requirements imposed in the awarding of government work, the information furnished to bidders was necessarily far more complete than that which ordinarily suffices on railroad work. In addition to complete profiles, alinement maps, and specifications, the data supplied included detail plans of all bridges, buildings, water supply facilities, etc., including even drawings of the track fastenings.

Crawler-Mounted Equipment Is Used Extensively in the Grading

The grading is being prosecuted on an intensive scale. For example, in a typical month (May, 1936), 506,000 cu. yd. of material was moved, or more than 10 per cent of the total yardage involved in the railway work. The equipment employed during that month on the nine grading contracts embraced 15 power shovels, 9 scoops, 7 cranes, 1 excavating grader and 2 drag lines.

Track work is all done by contract except where it interferes with train operation and except for the track changes involved in cutting in the relocated lines. This work is being done by railway forces and the expense billed against the project authority. The practice with respect to track materials is, for the most part, as follows: The railroads furnish rails, rail joints, tie plates, rail anchors, frogs, switches and guard rails for application on the relocated lines in exchange for the equivalent materials taken up on the lines that are to be abandoned. The project authority furnishes new spikes, bolts, ties and ballast. The tracks are all ballasted with washed and crushed gravel containing not less than 15 to 20 per cent of crushed material.

A Highway Under Crossing

Bridge Work

The bridges include beam spans up to 30 ft. in length, plate girder spans up to 125 ft. long, and one 150-ft. through truss span. With the exception of a bridge on the main line of the Erie, designed for E-70 loading, the structures have been proportioned for E-60. All steel spans have open decks with creosoted wood ties and guard timbers. The longest bridge is a deck plate girder structure 361 ft. 8 in. long between faces of back walls, with two 100-ft. spans in the middle, and having a 75 ft. span at each end. A distinctive feature of the bridge work is an open frame abutment, with the nose of the embankment sloping through and around it, insurance against sloughing of these slopes being provided by a stipulation in the grading specifications that the embankments at and around these abutments and for 25 ft. to the rear of them must be formed of rock.

Another noteworthy feature embodied in many of the structures is the use of metal-encased, cast-in-place reinforced-concrete piles, both as foundation piles (where the cut-off is above ground water level) and as bents in beam-span trestle structures. The casing of these piles is a fluted shell of 7-gage steel, 8 in. in diameter at the tip and with a taper that provides a diameter of 18 in. at the butt of a 40-ft. pile. Provided with a heavy steel point, these shells, manufactured by the Union Metal Products Company, Canton, Ohio, possess sufficient strength to permit them to be driven without the use of a mandrel

Temporary Trestle to Carry W. & L. E. Relocated Line Over B. & O. Line to Be Abandoned

These piles have been used in four highway undercrossings and several stream crossings, usually in three-span structures. Single bents of six-piles each are used for the intermediate supports, with two rows of piles in the end bents, the inner row of piles being battered. At the stipulation of the engineers for the railways, exposed piles have been encased above the ground level in a shell of concrete four inches thick.

Except in the case of the Dover reservoir, the various railway relocations were isolated, and could therefore be developed as individual problems. This, however, was not true at the Dover project, where it was necessary to work out a satisfactory solution covering three railways that occupied common territory near the deepest part of the reservoir. For this reason, some details of these locations are presented below, followed by an account of some of the salient features of the Pennsylvania's Wills Creek project.

Dover Reservoir Relocations

The Dover reservoir is in the shape of an unsymmetrical cross, with its long stem extending northwest and southeast and its short stem northeast and southwest.

An Example of One of the Larger Stream Crossings

The main line of the Wheeling & Lake Erie occupies the long stem, while the Marietta line of the Pennsylvania occupies the short stem, the two lines crossing at grade at Valley Junction. In addition, a branch line of the Baltimore & Ohio enters the valley from the northeast, in a location generally parallel with the Pennsylvania, from Mineral City to a connection with the Wheeling & Lake Erie at Valley Junction, where the latter road has a yard that is used for interchange with the B. & O.

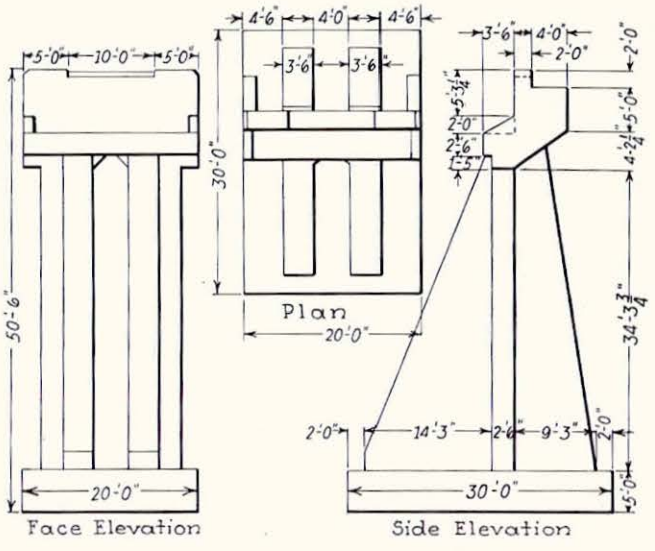
The relocated lines of both the Pennsylvania and the Wheeling & Lake Erie are supported, for the most part, on the sides of the valley above the position of the lines they replace, the latter relocation, 14.6 miles long, being the longest and most costly in the entire district. However, in the vicinity of Valley Junction, where all the existing railway facilities, as well as the town will be inundated by the reservoir, both of the new lines are carried across the valley on long high embankments, and cross at grade on high ground north of the old crossing in the valley. Each embankment is broken by a three-span deck plate girder bridge across Conotton creek.

Wills Creek Reservoir

Since the portion of the B. & O. line that will be submerged serves almost entirely as a connection with the W. & L. E., and because the Pennsylvania relocation between Mineral City and Valley Junction affords the most direct connection with the W. & L. E., and the further fact that the traffic on both the Pennsylvania and B. & O. lines is light, arrangements have been made for the joint ownership and operation of this line from Mineral City to Valley Junction by the two roads. The old low-level interchange yard at Valley Junction is being replaced by a new yard just north of the Pennsylvania-W. & L. E. crossing, that will consist of four 4,000 ft. tracks, in addition to a passing track and a wye for turning B. & O. locomotives.

This yard is provided with water service from a reservoir on the W. & L. E. at Dewey, one mile to the north, where a new intake well is being provided in addition to a new tank and a 14-in. pipe line to the new yard. A water column is also being provided at the crossing for delivery to Pennsylvania locomotives to replace water facilities on that road at Zoarville that will be submerged by the reservoir.

The reservoir to be created by the dam across Wills creek will inundate 8.25 miles of the Pennsylvania s Marietta branch, all of this mileage being embraced in a hairpin loop around a shoulder in the east side of the valley. This loop line was built years ago after a tunnel through the ridge had been rendered unusable by a fire that destroyed the timber lining. As this old tunnel line is above pool level in the reservoir, some consideration was given to the salvaging of the old tunnel, but because of the extreme uncertainties regarding the cost of this plan it was abandoned in favor of a line embracing a tunnel crossing farther to the east that effects a greater saving



Outline Drawing of a Typical Bridge Abutment

in distance—the relocation has a length of 3.25 miles compared with 8.25 miles around the loop, and is responsible for a reduction of 260 deg. of curvature.

The tunnel is 750 ft. long on a 5 deg. curve, with approach grades of 0.9 per cent and 1.0 per cent from the south and north respectively, the lighter grade opposing the direction of loaded movement. These grades are appreciably heavier than those on the abandoned line but are considerably less than those on other portions of this

Muskingum Watershed Conservancy District Railway Relocations and Abandonments

Reservoir	Railroad	Line Affected	Length of Relocated Line (Miles)	Grading Involved (Cu. Yd.)
Atwood	Wheeling & Lake Erie	Carrollton Branch	5.68*	
Beach City	Baltimore & Ohio	Wheeling to Warwick	5.25	500,000
Beach City	Wheeling & Lake Erie	Brewster to Zanesville	9.33	740,000
Bolivar	Baltimore & Ohio	Akron to Valley Junction	5.85	630,000
Charles Mill	Erie	Main Line to Chicago	2.65	270,000
Dover	Wheeling & Lake Erie	Brewster to Wheeling	14.60	1,390,000
Dover	Pennsylvania	Marietta Branch	5.62†	480,000
Dover	Baltimore & Ohio	Branch Line	2.2	173,000
Mohawk	Pennsylvania	Cleveland-Columbus	1.85	220,000
Mohawk	Pennsylvania	Walhonding Branch	19.5*	
Wills Creek	Pennsylvania	Marietta Branch	3.37	350,000
				4,753,000

* Abandoned.
† Part of this new line is to be owned and used jointly by the Pennsylvania and the Baltimore & Ohio.

line. The tunnel is in shale that had to be supported as the headings were advanced; in fact, it was necessary to drive wall-plate headings for a considerable distance from each portal before reaching ground that was sufficiently stable to permit the use of the full top heading method. The timber lining that was placed as the headings were advanced was set with sufficient clearance to permit the immediate placing of a concrete lining.

The Muskingum valley project, except for real estate acquisition and highway relocations, is entirely under the direction of Lieut. Col. J. D. Arthur, Jr., district engineer, Corps of Engineers, U. S. Army. T. T. Knappen, senior engineer, is chief of the engineering division, and Gilbert H. Friend, senior engineer, is chief of the railroad section. For purposes of administration, the district is divided into four areas, each under the direction of an area engineer. Each dam project and each of the railway relocations is under a resident engineer.

The various relocations are being handled as individual contracts covering all work required for the completion of the relocations ready for operation, other than the fabrication and erection of the steel bridge superstructures, which are being done by the Mt. Vernon Bridge Company, Mt. Vernon, Ohio. In one case the track laying is being handled as a separate contract. With two exceptions, the contracts were awarded between April 18, 1935, and September 4, and on June 1, 1936, 2,756,600 cu. yd. of grading or 58 per cent of the total required yardage had been completed. It is expected that most of the relocations will be completed late this year.

Odds and Ends . . .

More Standard Gage

The world's mileage of Russian broad gage track was materially reduced last month when the Japanese changed 600 miles of such track in northern Manchuria over to standard gage.

Negus Drives Negus

The Railway Gazette of London reports that, on July 24 last, engineman J. Negus drove his train from Worthing to Victoria station, London, with the negus of Abyssinia, Haile Selassie, in the rear coach. Thus, a Negus was driving a negus.

Railroader-Manager

There have been several major league ballplayers mentioned in this department as ex-railroaders, but, so far as is known, Charles Dressen, manager of the Cincinnati Reds, is the only ex-railroader who manages a major league team. Charlie used to be a switchman in the Wabash yards at Decatur, Ill.

Remembers the DeWitt Clinton

Mrs. Fannie J. K. Bailey, who died on August 5 at her home in Albany, N. Y., was 104 years old, and among her reminiscences she told of having taken a ride from Albany westward to Schenectady on the railroad in 1836, when she was four years old. This, the first regular railroad in the State of New York, had then been in operation five years. Mrs. Bailey, journeying with her parents, was on the way from Thompson, Conn., to Seneca Falls, N. Y.

Old 999 Aids Roosevelt When Train Gets Stuck

The famous old steam engine 999, which in 1893 set a world's speed record for locomotives which has never been beaten, came to the rescue of President Roosevelt's special train in Cleveland recently. The train was parked in the grounds of the Great Lakes Exposition by a switch engine, which took it in after he had debarked, because the switches would not accommodate the large locomotive regularly attached to the train. When departure time came, the switch engine could not budge the heavy special train. Old 999 was on a near-by siding with steam up, as part of the exposition features, so railroad officers had its engineman hook on to the nose of the switch engine. The president rode for several miles behind the famous locomotive, until it gave way to the regular engine, awaiting the train in the main railroad yards.

Shovels

One of the lowliest, but one of the most important of the scores of working tools of railroads—the shovel—had its beginning a million years ago, according to a comprehensive "life history" of the implement published in the current issue of the Norfolk & Western magazine. The N. & W. uses approximately 10,000 shovels in its various operations, ranging from the tiny eight-gram spade for weighing and testing material on sensitive scales in its chemical laboratories, to the huge mechanical shovel weighing thousands of pounds employed in hewing out new pathways for the "Iron Horse." Other varieties of railroad shovels include ladles for dipping molten metal, track shovels, telegraph post-hole spoons, moulder's shovels, fireman's scoops, stove shovels, perforated shovels for handling oil-soaked bolt cuttings, etc. The shovel, the magazine quotes Hendrik Van Loon as saying, was probably invented by a woman. In his "Man, The Miracle Maker" Van Loon writes, "In the earliest agricultural communities men did not demean themselves with work in the fields. They left that to their wives and daughters and to their donkeys." He added, that perhaps some woman, who, tired of breaking her nails while pulverizing the soil, picked up a stick or a stone and let it do the work of her fingers, and thus started the history of the shovel.

Poetic Justice?

Eighty-five years ago last week a train on its way from Brighton to Lewes was derailed at Newmarket Hill. A tie had been put on the rails. Four people were killed. A 10-year-old shepherd boy was charged with placing the tie there, tried at assizes, and acquitted. Exactly a year afterwards, on the same day, at the same time, at the same place, the boy, Bokes by name, was killed by lightning.—Railway Gazette.

Accurate Measuring

The following is vouched for by a division superintendent of the Atchison, Topeka & Santa Fe:

The division on which he was at the time this happened was handling a heavy traffic and in response to a call for additional power a number of Santa Fe type locomotives were transferred from another division. These locomotives, having small diameter drive wheels, were bulletined to travel at a rather limited speed. Shortly after these locomotives were put on the division, the roadmaster reported a bunch of badly kinked rails in a sag where it was found that one of these locomotives had been operated considerably in excess of the speed limit. The superintendent questioned the engine crews that had been on all of these locomotives and all of them denied having exceeded the speed limit. What to do? He thought it over a couple of days and finally had a happy thought. He asked the division engineer to send a couple of men out to measure the circumference of the main drivers on each of these locomotives as accurately as it was possible to do so, and as luck would have it, he found that there was an appreciable difference—in fact, as much as seven inches in the circumference of these drivers due to the difference in tire wear. He then sent these engineers out on the field to measure the distance between the kinks in the track, measuring the distance over a considerable distance so as to strike an average, and found that these kinks fitted the circumference of only one of the locomotives. Upon being questioned, the engine crew of that locomotive admitted that they had been running pretty fast at the point in question.

NEWS

Purchases of Equipment During Month of August

Domestic orders were placed during last month for 3,225 freight cars and 3 locomotives

There were domestic orders for 3,225 freight cars and 3 locomotives reported in the weekly issues of the *Railway Age* during the month of August. This brings the total orders for domestic service to 34,254 freight cars, 134 locomotives and 141 passenger-train cars (excluding power plants or articulated units for streamlined trains) for the eight months of this year as compared with 18,699 freight cars, 83 locomotives and 63 passenger-train cars reported for the entire 12 months of 1935.

There were in addition on September 1, inquiries for 775 freight cars and the purchase of some 800 additional cars were proposed for domestic service and inquiries for 400 cars for export. In addition to the 3 domestic locomotives ordered during August there was an order placed for 2 locomotives for export and inquiries outstanding for 24 locomotives and plans made for the purchase of 3 additional locomotives for domestic service and inquiries for 23 locomotives for export. There was no change in the passenger-train car orders during August.

Orders for 9,600 tons of rail were reported in August. The total for the eight months of this year is 522,585 tons as compared with 495,300 tons for the entire year of 1935. Particulars of the domestic freight car and locomotive orders reported during the month of August are given in the accompanying table. Since the above figures were compiled 3 steam locomotives and 750 freight cars have been ordered for domestic service and inquiries have been issued for 700 additional freight cars for export, as reported elsewhere in these columns under the heading "Equipment and Supplies."

Grousing Pays on the British Railways

Over 7,000 passengers traveled by rail from London to Scotland on the night of August 10 to be on hand for the opening of the grouse-shooting season. Of this total some 4,000 engaged berths in sleeping cars on the two railways (London, Midland & Scottish and London & North Eastern) which run from London to Scotland. The Royal Highland Express (L. M. S. from Euston station), which ran in 7 sections, alone handled 3,000 of these passengers, of whom 2,000 rode in sleeping cars.

In addition there was heavy highway traffic, particularly on the Great North Road, but an increasing number of sportsmen this year sent their motor cars by rail, several special trains being run for this traffic alone. Most of the passengers were destined for the West Highlands—Deeside and Inverness-shire.

Traveling Engineers to Hold Meeting

The fortieth annual meeting of the Traveling Engineers' Association will be held on September 15 and 16 at the Hotel Sherman, Chicago. The amalgamation of the Traveling Engineers' Association and the International Railway Fuel Association is among the subjects to be discussed at this meeting. Other subjects are (1) Of What Benefit Is the Road Foreman or Traveling Engineer to the Railroads? (2) What Has Been Accomplished by Extended Locomotive Runs; (3) Progress in Draft Appliances and the Effect on Present-Day Locomotives; (4) Brakes as Used on Streamline Trains, Gas or Oil or Electric, Handling and Operating and Maintenance, and (5) New Super-Speed Passenger Locomotives.

Domestic Equipment Orders Reported in Issues of the Railway Age in August, 1936

LOCOMOTIVES

Date	Name of company	No.	Type	Builder
Aug. 22	Conemaugh & Black Lick	2	0-8-0 switching	American Locomotive Co.
Aug. 22	Monessen Southwestern (Pittsburgh Steel Co.)	1	0-6-0 switching	American Locomotive Co.

FREIGHT CARS

Aug. 8	Union Tank Car Co.	3,000	Tank	American Car & Fdy. Co.
Aug. 22	Youngstown & Northern	100	Gondola	Greenville Steel Car Co.
Aug. 22	Birmingham Southern	100	Box	Pullman-Standard
		25	Gondola	

For Seven Months Railways Net 2.30 Per Cent Return

July Shows Increase of 129 Per Cent Over July, 1935

Class I railroads in the first seven months of 1936 had a net railway operating income of $300,021,056, which was at the annual rate of return of 2.30 per cent on their property investment, according to reports just filed by the carriers with the Bureau of Railway Economics of the Association of American Railroads. In the first seven months of 1935 their net railway operating income was $221,695,798 or 1.69 per cent. Operating revenues for seven months totaled $2,222,672,830, compared with $1,910,843,489 for the same period in 1935, an increase of 16.3 per cent. Operating expenses for the seven months amounted to $1,669,747,282, compared with $1,477,968,303 for the same period in 1935, an increase of 13 per cent.

Class I railroads in the first seven months of 1936 paid $176,579,272 in taxes compared with $141,206,979 in the same period in 1935, or an increase of 25 per cent. For the month of July alone, the tax bill amounted to $27,912,486, an increase of $8,018,171, or 40.3 per cent, above July, 1935.

Twenty-five Class I railroads failed to earn expenses and taxes in the first seven months of 1936, of which 9 were in the eastern district, 4 in the southern district and 12 in the western district.

Class I railroads for July had a net railway operating income of $61,773,765, which, for that month, was at the annual rate of return of 2.69 per cent. This was an increase of 129.5 per cent over the figure for July, 1935, when the net was $26,919,343 or 1.17 per cent. Operating revenues for July amounted to $349,743,963, compared with $275,307,553 in July, 1935, an increase of 27 per cent. Operating expenses totaled $248,365,852, compared with $218,022,449 in the same month in 1935, or an increase of 13.9 per cent.

Class I railroads in the eastern district for the first seven months in 1936 had a net railway operating income of $194,103,770, which was at the rate of 2.95 per cent. For the same period in 1935, their net was $159,792,081, or 2.43 per cent. Operating revenues in the eastern district for the seven months totaled $1,134,477,979, an increase of 14.6 per cent, compared with 1935, while operating expenses totaled $815,219,096, which was an increase of 12.3 per cent.

Railroads in the eastern district for July had a net railway operating income of

$32,560,654, compared with $16,726,598 in July, 1935.

Class I railroads in the southern district for seven months of 1936 had a net of $38,487,128, which was at the rate of 2.17 per cent. For the same period in 1935, their net amounted to $26,428,194, at the rate of 1.47 per cent. Operating revenues in the southern district for seven months amounted to $280,112,599, an increase of 14.4 per cent compared with the same period in 1935, while operating expenses totaled $213,050,185, an increase of 9.2 per cent. Railroads in the southern district for July had a net of $6,118,158, compared with $2,003,163 in July, 1935.

Class I railroads in the western district for seven months had a net of $67,430,158, at the rate of 1.44 per cent. For the same seven months in 1935 the railroads in that district had a net of $35,475,523, which was at the rate of 0.75 per cent. Operating revenues in the western district for seven months in 1936 amounted to $808,082,252, an increase of 19.6 per cent above the same period in 1935, while operating expenses totaled $641,478,001, an increase of 15.1 per cent. For July the Class I railroads in the western district reported a net of $23,094,953, compared with $8,189,582 for the same roads in July, 1935.

The practice recently started by the Bureau of Statistics of the Interstate Commerce Commission of issuing advance summaries of railway revenues, expenses, and net railway operating income has led to a rivalry between the commission and the Association of American Railroads to get the figures out first. On August 28 the commission's bureau issued a summary of the returns for July which was 99 per cent complete for the eastern district, 98 per cent complete for the southern district, and 78 per cent complete for the western district. On August 29 it issued another statement still more complete and on August 31 it issued its final advance summary, 100 per cent complete. On August 28 the A. A. R. also issued a summary of advance reports from 113 Class I roads, representing 96.8 per cent of the total operating revenues, about three hours ahead of the commission statement, and on August 31 it issued its final statement. The association statement gives the percentage of return on property investment, which is not given in the commission's statement, and also gives the tax figures separately, while the commission statement combines expenses, taxes, and rents. On the other hand the railroad association statement omitted the percentage of increase in net railway operating income.

CLASS I RAILROADS—UNITED STATES

Month of July

	1936	1935	Per Cent of Increase
Total operating revenues	$349,743,963	$275,307,553	27.0
Total operating expenses	248,365,852	218,022,449	13.9
Taxes	27,912,486	19,894,315	40.3
Net railway operating income	61,773,765	26,919,343	129.5
Operating ratio—per cent	71.01	79.19	
Rate of return on property investment—per cent	2.69	1.17	

Seven months ended July 31

	1936	1935	Per Cent of Increase
Total operating revenues	$2,222,672,830	$1,910,843,489	16.3
Total operating expenses	1,669,747,282	1,477,968,303	13.0
Taxes	176,579,272	141,206,979	25.0
Net railway operating income	300,021,056	221,695,798	35.3
Operating ratio—per cent	75.12	77.35	
Rate of return on property investment—per cent	2.30	1.69	

Winter Resort at Ketchum on U. P.

The Union Pacific is creating a new winter sports mecca near Ketchum, Idaho, in the Sun valley in the Sawtooth mountains northeast of Boise. Sun Valley Lodge, as it will be known, will be opened at Christmas time with accommodations for 200 guests.

Accounting Committees Appointed

F. J. Fell, Jr. (vice-president, Pennsylvania), who is chairman of the Accounting Division of the Association of American Railroads, has named the members of the division's committees for the ensuing year. Chairmen of these committees are as follows: General committee, F. J. Fell, Jr.; statistics, O. J. Rider (B. & O.); freight accounts, A. T. Martin (Southern); overcharge, W. P. Heuel (C. M. St. P. & P.); passenger, G. W. McElwain (S. P.); disbursement, J. P. McDonald (A. T. & S. F.); terminal, C. T. Pennebaker (Union); motor carrier, G. F. Glacy (B. & M.); water line, A. C. Matheson (Chesapeake S.S. Co.); arbitration, W. D. Steele (S. A. L.).

Time for Filing Continuance in Service Agreements Extended

The Railroad Retirement Board on August 26 announced that it had extended from August 31 to October 31 the time for the filing of the continuance in service agreements which must be filed with the board in order to avoid reductions in the annuities provided for in the railroad retirement act for employees who continue in service after age 65. The law provides that on agreement with the employing railroad an employee may remain in service from 65 to 70 without reduction in annuity; but otherwise an employee who remains in service after 65 has his annuity reduced for each year after that age. The board said it had been apprised that the carriers employing more than 90 per cent of the employees subject to the act have refused to execute the continuance-in-service agreement prescribed by the board, pending the final determination of their suit challenging the constitutionality of the act; but the board has under consideration the taking of appropriate action to meet the emergency so created and hopes to make an announcement in the near future.

Southern Pacific Introduces Children's Menu

A children's bill of fare, to appeal to little boy and girl travelers, has been introduced by the Southern Pacific on all its dining cars. Special meals are priced

below the "meals select" for adults and are set forth in attractive style, illustrated in color and containing a series of nursery rhymes about members of the train crew and other things. Some of the rhymes are educational as well as entertaining. For example:

The Pullman porter's work is light,
He used to polish shoes all night,
But on our air-conditioned line
He can't find dust on shoes to shine.

McKirchy, B. of R. T. Official, Dies

W. W. McKirchy, vice-president of the Brotherhood of Railroad Trainmen, died on September 1 in the Mercy hospital at Chicago following a brief illness. Mr. McKirchy, who was 59 years old, entered railway service 38 years ago as a towerman on the Lake Shore & Michigan Southern.

"Silver Jubilee" Does 113 M.p.h.

The "Silver Jubilee"—steam streamliner of the London & North Eastern—shattered British speed records on August 27 when it reached a top speed of 113 miles per hour for a half-mile stretch on the Rutland-Lincolnshire border, according to cable dispatches from London.

Rail Brotherhood to Ask Two Men in Cabs

The executive council of the Brotherhood of Locomotive Firemen and Enginemen, meeting at Chicago on August 25, prepared a contract for submission to the principal railroads of the country, calling for the employment of two men in all engine cabs at all times. The contract is aimed specifically at Diesel locomotives, 400 of which are in switching service.

Correction

The list of accidents which have occurred in connection with light-weight passenger trains, which appears in the *Railway Age* of August 22, page 276, contains an error of one word; an error which would impair an annual record.

The person killed, as shown in item No. 5, was a dining car cook, not a passenger. The record of only one passenger killed in a train accident on the railroads of the United States in the year 1935 still stands.

Suspension of Low Chicago-Twin Cities Rate Vacated

The Interstate Commerce Commission on August 26 vacated its order of suspension as to the freight rate of 35 cents per 100 lb. on all commodities, with some exceptions, between Chicago and Minneapolis and St. Paul, minimum weight 30,000 lb., which had been published by the railroads to meet the competition of the co-ordinated truck service over the Chicago Great Western. The vacating order was issued after receipt of a petition by the Baltimore & Ohio and other roads asking that the suspension be lifted, saying they could not compete with the C.G.W.-truck service under the existing rate of 55 cents, minimum 40,000 lb. This action by the commission authorized the railroads to use the reduced rate on one day's notice. The original vacating order also discontinued the investigation but on September 1 the commission modified the order of August 26 so that its only effect was to vacate the suspension and assigning the case for hearing at Minneapolis on September 28 before Examiner J. E. Smith.

Short Lines Hold Annual Meeting

The American Short Line Railroad Association held its annual meeting at Denver, Colo., on August 24 and 25, with an attendance of 150 association members. J. M. Hood was re-elected president, and R. E. Schindler, secretary-treasurer. H. B. Cobban, secretary-treasurer and general manager of the Northeast Oklahoma, with headquarters at Miami, Okla., was elected regional vice-president to succeed C. C. Cary, vice-president and general manager of the Sabine & Neches Valley. Justice Benjamin C. Hilliard, of the Colorado Supreme Court, and J. M. Symes, vice-president of the Association of American Railroads, were the principal speakers.

Credit Corporation Has Returned 63 Per Cent

The Railroad Credit Corporation on August 31 made to the participating rail carriers the largest liquidating distribution so far made by it at any one time, amounting to $7,354,139, or 10 per cent of the fund originally contributed by the carriers participating in the Marshalling and Distributing Plan, 1931. Of the total, $3,753,630 was in cash and $3,600,509 was credited on carriers' indebtedness to the corporation. This brings the total amount distributed by the Railroad Credit Corporation to $46,331,074, or 63 per cent of the fund originally contributed by the participating carriers. Of the latter amount, $22,475,584 will have been returned in cash and $23,855,490 in credits.

New York Warehousing Order Postponed

On petition of the railroads concerned the Interstate Commerce Commission has postponed from October 1 to December 1 the effective date of its order of June 8 requiring seven railroads serving the port of New York to cancel their tariffs covering rates and charges for the leasing of space, storage, handling and insuring of goods in connection with commercial warehousing services. The railroads in the petition said that the time allowed was insufficient for the cancellation of numerous tariffs, the discontinuance of various services furnished, and the abrogation of contracts involving real estate valued at many millions of dollars.

Later the railroads filed with the commission a petition for a rehearing, reargument and reconsideration of the case.

Ticket Agents to Meet at Salt Lake

The annual sales educational meeting of the American Association of Railroad Ticket Agents will be held at Salt Lake City, Utah, on September 8 to 10. An innovation at this year's meeting will be a question box into which members attending will drop questions for discussion. The introduction of the question box is an effort to give members an opportunity to bring before the meeting such questions as are of particular interest to themselves. The questions will be discussed in an open forum. Other topics to be considered at the meeting are: what form of education is the most beneficial for the training of rail transportation salesmen; in what ways can a traveling passenger agent be of more assistance to the local agent; and what unusual experiences in the development of passenger transportation have you experienced.

Railroads Object to Proposed New York Motor Carrier Zones

Twelve railroads serving the New York district have filed with the Interstate Commerce Commission a statement of exceptions against the recent report proposed by an examiner of the commission's Bureau of Motor Carriers recommending the boundary limits to be prescribed by the commission for the New York commercial area under the provision of the motor carrier act which exempts motor carrier operations within such municipal areas from most features of the commission's regulation. The railroads protested because of the large extent of territory outside of New York City included by the examiner in the proposed zone, asserting that the exemption of motor carriers in such a large area would defeat the purpose to improve the relations between motor and other carriers.

Virginian Appeals in Suit Against Railway Labor Act

The Virginian Railway has filed in the Supreme Court of the United States an appeal from decisions of the Eastern Virginia federal district court and the circuit court of appeals for the fourth circuit which had upheld the validity of the railway labor act in requiring the road to negotiate in wage matters with shop craft unions affiliated with the American Federation of Labor. In an election, conducted under the supervision of the National Mediation Board, a majority of the shop craft employees on this road voted for representation by System Federation No. 40. In its appeal the company avers that compulsory provisions of the law compel it "to recognize a labor union as a factor in the conduct of its business and to deny to it its inherent right to deal directly, or through other representatives, with such of its employees as desire so to deal."

New Intrastate Grain Rates Ordered in Iowa

New intrastate railroad freight rates, uniform for all grains, and in many instances from 15 to 20 per cent lower on long hauls, have been ordered by the Iowa board of railroad commissioners, effective October 1. The new schedule of rates replaces the present schedule which has been in effect since January 1, 1932. The rates make no distinction between wheat and coarse grains such as corn, oats, rye and barley and bring the schedule into con-

formity with similar rates on interstate shipments. Starting at seven cents per 100 pounds for a haul up to twenty miles, the new schedule, with intermediate graduations not included, follows: For fifty miles, 8½ cents; seventy-five miles, 10 cents; 100 miles, 11 cents; 125 miles, 12½ cents; 150 miles, 13½ cents; 175 miles, 14½ cents; 200 miles, 15½ cents; 250 miles, 17 cents; 300 miles, 19 cents; 350 miles, 20½ cents; 400 miles, 22 cents; 450 miles, 23½ cents, and 500 miles, 25 cents.

Canadian Roads in July

The Canadian Pacific had net operating revenue in July totaling $979,099, as compared with $1,526,181 for July of last year, a decrease of $547,081. Gross for the month at $11,577,429 showed an increase of $447,862 over the gross for the corresponding month of last year, while operating expenses at $10,598,329 showed an increase of $994,944.

For the seven months of this year ended with July, net operating revenues amounted to $7,770,099, as compared with $7,588,200 for the corresponding period of last year, an increase of $181,899. Gross for the seven-month period at $73,621,776 showed an increase of $5,963,584, while operating expenses at $65,851,676 showed an increase of $5,781,684.

Operating revenues on the Canadian National all-inclusive system for July amounted to $15,296,295. This was an improvement of $425,163 over July of 1935. Operating expenses totaled $15,209,092, and net operating revenue was $87,203.

For the current year up to July 31 operating revenues amounted to $100,757,723, an increase of $5,754,797 over the corresponding period of last year. Operating expenses during the seven months totaled $98,195,479, showing an increase of $6,466,211. There was a net operating revenue of $2,562,244 for the seven months of the current year, as compared with $3,273,658 in the first seven months of 1935.

Washington Upholds Motor Transportation Act

The Supreme Court of Washington state, on August 21, upheld the constitutionality of the 1935 Motor Transportation act, reversing the judgment of Superior Judge W. A. Huneke of Spokane county. Following the passage of the act, five eastern Washington automobile freight firms brought suit against the department of public service, which the act authorized to set rates for all classes of carriers, contending the law was unconstitutional and that it violated the due process of law clause of the federal constitution. The lower court upheld the companies. The Supreme Court pointed out that, since the state has spent millions of dollars to build thicker and wider highways to accommodate trucks, the trucks should be regulated.

The companies also contended the discrimination between contract and common carriers was unfair, but the high court ruled in favor of the state on this point. The lower court was given directions to dismiss the case. Prior to the filing of the suit, the state had attempted to force contract carriers to charge the same rate for freight as common carriers. Contract carriers challenged the right of the department of public service to enforce the rate, and Judge Huneke, in holding the law unconstitutional, had said that to enforce the law would destroy the business of the contract carriers, who could make a special rate because they hauled in large quantities.

Club Meetings

The Central Railway Club of Buffalo (N. Y.) will hold its next meeting at Hotel Statler, Buffalo, on Thursday evening, September 10. John M. Hall, chief inspector of the Bureau of Locomotive Inspection, Interstate Commerce Commission, will present a paper reviewing 25 years of government inspection.

The Car Foremen's Association of Omaha, etc., will hold its next meeting at the Burlington passenger station, Omaha, Neb., on Thursday, September 10, at 1:30 p.m.

The Car Foremen's Association of Chicago will hold its next meeting at La Salle Hotel, Chicago, on Monday evening, September 14. The "Story of a Famous Coal," by the Bell & Zoller Coal Company, will be presented, with motion pictures; and there will also be a discussion on maintenance of coal-carrying equipment, to be led by O. E. Ward, general superintendent of motive power, of the Chicago, Burlington & Quincy.

The Northwest Car Men's Association (St. Paul, Minn.) will hold its next meeting on Wednesday evening, September 9, at the Midway Club Rooms, University and Prior Avenues, St. Paul. G. J. Conklin will present a paper on the A. A. R. loading rules.

The Pacific Railway Club will hold its next meeting at Fresno, Cal., on Friday evening, September 11, in the auditorium of the San Joaquin Light & Power Corporation—the first meeting of the club to be held in the San Joaquin Valley. The subject for discussion will be handling of San Joaquin Valley products to market. The speakers scheduled are: A. Setrakian, president of the Mid-State Horticultural Company; W. L. White, general manager of the Yosemite Valley Railway and A. C. Joy, of the Pacific Gas & Electric Company.

The Southern and Southwestern Railway Club will hold its next meeting on Thursday, September 17, at the Ansley Hotel, Atlanta (Ga.), beginning at 10 a.m. E. H. Gunbart, of the Bethlehem Steel Company, will speak on alloy steel.

Fourth Section Relief Granted and Denied

The Interstate Commerce Commission within the last few days has issued a series of decisions in rate cases under the fourth section of the interstate commerce act, both granting and denying applications for authority to publish reduced rates to meet water and truck competition without making corresponding reductions in intermediate rates.

Authority was granted on conditions to establish and maintain rates in import traffic from Gulf, south Atlantic, and Florida ports to the Minneapolis, Minn., group without observing the long-and-short-haul provisions of the fourth section. Import class rates from the north Atlantic ports to the Minneapolis group points are governed by the official classification, but those from the south Atlantic and Gulf ports are governed by the western classification. The railroads proposed to apply the official classification ratings in connection with the import class rates from the ports while maintaining the present class rates to intermediate points subject to the western classification.

In another case authority was granted on conditions to establish and maintain rates on lumber and shingles, in carloads, from north Pacific coast points to points in Texas without observing the long-and-short-haul provisions.

On the other hand the commission denied fourth section relief on an application as to rates on paper and paper articles in carloads from points in southern and southwestern territories to Virginia, West Virginia, and Maryland gateways, to Ohio and upper Mississippi river crossings, north Atlantic ports, and certain points in central territory, stating that the facts with respect to competition upon which applicants relied do not conclusively show the necessity for the relief sought.

The commission also denied an application for fourth section relief on fresh meats and packing house products from points in western trunk line territory to points in Kansas-Missouri territory and the Southwest, and between points in the Southwest.

World Power Conference Delegates Tour U. S. Railways

A group of foreign railway and power men are making a tour of the U. S. railways, with particular reference to the new high-speed trains, prior to attending the World Power Conference in Washington on September 7 to 12, inclusive. The various phases of the Pennsylvania's electrification, and the mail handling facilities and station operation at its New York Terminal, and the New York Central's west side improvements and St. Johns terminal in New York were studied on August 28 and 29. On August 31 the party visited the plants of the American Locomotive Company and the General Electric Company in Schenectady, and, on September 1 and 2 a comprehensive inspection of eight of the high-speed trains entering Chicago was made, as well as a visit to the plant of the Electro-Motive Company at La Grange, Ill. September 3 was devoted to a round-table conference attended by a large number of railway men, who discussed the problems of high-speed operation and answered the questions of the foreign delegates. On September 4 the party inspected a number of railway facilities and railway supply factories in Pittsburgh, Pa., the tour finishing with an inspection of the union station in Washington on September 5.

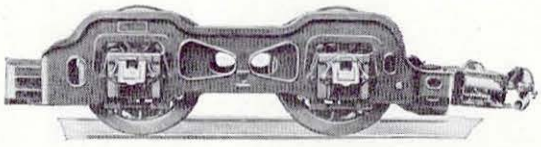
Among the delegates are Lord Falmouth, head of the British delegation to the conference, and H. H. Blache, head

Continued on next left-hand page

She said good-night to her friends at 10:30 . . . a few minutes later she was in deep, restful sleep . . . at 11:25 the train stopped at X--but she didn't know it. It stopped again at 12:45--but still she slept.

At 7:30 she rang for the porter--clear-eyed--rested--over eight hours of uninterrupted rest--she never lost a wink of her beauty sleep.

And she knows what a good night's rest means to her looks, and she tells her friends how well she slept on the train. Booster-equipped locomotives mean smooth, sharper starting; satisfied patrons that boost your railroad.



FRANKLIN RAILWAY SUPPLY CO., INC. NEW YORK CHICAGO MONTREAL

of the Danish delegation, both of whom have large interests in the railways of their respective countries. Jurgis Ciurlys, director general of the Lithuanian state railways; Paul Bangert, chief engineer, Henschel Locomotive Works of Germany, and K. Kawai, A. Uchiyama and M. Otsuki, of the Imperial Government Railways of Japan, are other prominent members of the party.

Reduced Rates in Drought Territory

The Department of Agriculture Drought Committee announced on August 29 that western railroads had authorized additional freight rate reductions on livestock and feed, thereby broadening the territory in which reduced rates have become effective.

Shipments of hay at two-thirds of the normal rate and of coarse roughages at half the normal rates have been authorized for the first time to drought counties in Nebraska and to additional counties in Kansas. The areas affected by these reductions also were extended in the Northwest when they were authorized from Union Pacific railroad points in Washington and Oregon, west of Huntington, Oregon, to points in Montana and North Dakota on the Great Northern and Northern Pacific lines, and from points on the Southern Pacific northward from Alturas, Calif., to points in Montana and North Dakota along the Milwaukee road.

The two-thirds rate on linseed meal or cake and on soybean meal or cake, which became effective on shipments to portions of North Dakota, South Dakota, and Montana on August 21, has now been extended to in-between points in Montana, Nebraska, South Dakota, and Wyoming.

In Oklahoma and Texas, the principal railroads have authorized a reduction to 50 per cent of the normal tariff rate on the movement of cattle from Oklahoma and Kansas to pastures in Texas. This reduction is available on outbound shipments during the remainder of August, September and October, with no rate basis authorized for return shipments.

Reductions of 85 per cent on outbound shipments and 15 per cent on return shipments of livestock from drought-stricken areas to areas where feed and pasture are available have now been authorized for drought counties in Kansas not covered by previous authorizations. This reduction, designed to encourage the maintenance of foundation herds, was previously authorized on shipments from other Kansas counties as well as from emergency drought areas in Wyoming, South Dakota, North Dakota, Nebraska and Montana.

The Great Northern and the Northern Pacific also authorized joint hauls of livestock on the 85 per cent rate from Montana and North Dakota to additional Washington and Oregon points, principally in the Willamette Valley. These two carriers also extended the expiration date from September 1 to October 31 on shipments of livestock from these two states.

A. A. R. Publishes Book on Accounting Rules

The accounting division of the Association of American Railroads has published a new book, "Railway Accounting Rules," which contains the mandatory interline accounting rules and standard forms of the Accounting Division, Association of American Railroads, as revised at the forty-seventh (1936) annual meeting of the railway accounting officers, and is effective as of November 1, 1936. In addition, the book includes the recommendatory rules and forms formerly promulgated in "Railway Accounting Procedure," revised by the appropriate committees and recently adopted by the accounting officers as the current recommendatory practices of the Accounting Division.

A number of important revisions in the rules and forms were approved at the recent meeting of the Accounting Division. For example, there has been an entire rearrangement of the freight mandatory rules with respect to time limits, including a number of changes in the time limits themselves. The arbitration rules formerly contained in the different sections of the previous Rules Book have been consolidated and arbitration rules applicable to all mandatory accounting rules are included in a separate section of the book.

Certain editorial revisions have been made so as to present the various phases of interline accounting in a more concise and practical manner. A comprehensive index is provided for each of the four principal sections—freight, passenger, disbursements and overcharge accounting rules. Reference tables for use in referring to previous rule numbers and showing disposition of former recommendatory rules are also provided.

One copy of the book will be distributed free to each member of the Accounting Division. Additional copies may be obtained from the office of the division in Washington for 75 cents a copy, with a reduction in price for quantity orders.

Westchester Road May Cease Operation, Court Warns

C. L. Bardo, trustee in bankruptcy for the New York, Westchester & Boston (suburban electric subsidiary of the New Haven Railroad), has made public a letter from Judge Carroll C. Hincks of the federal district court in New Haven, Conn., which has jurisdiction in the bankruptcy, stressing the need for reducing expenses.

Judge Hincks remarked that, aside from wages and rentals, "there appear to me to be absolutely no other items on your operating statements that are susceptible of further reduction unless it be the item of taxes."

Mr. Bardo has been unsuccessful until now in obtaining tax reductions. He has sent copies of Judge Hincks's letter to "governing bodies and the people of Westchester County served by the New York, Westchester & Boston Railway Company and its employees."

Judge Hincks said he was not suggesting that tax reduction be accomplished by litigation. "Indeed," he said, "there is scarcely time for this. For it looks doubtful, to put it mildly, whether we can keep the road running long enough to await the result of such litigation.

"Instead, it is my view that we should give all parties affected an opportunity and the resulting responsibility each to make his equitable contribution to the salvation of the road. The court, with your assistance, will, at least for a month or two longer, keep the wheels rolling and make arrangements so that at the end of that time we can say to the traveling public, to the municipalities served by the road and to the employees:

"'Here are the irreducible figures. Our gross revenues, even with the fares recently increased, amount to so much, and we can count on no more. Our operating expenses are so much, and we can cut them no further unless labor will accept a voluntary wage reduction, or unless the taxing authorities will give effect to our lack of earnings by reducing tax assessments.'

"If no concessions are then forthcoming we may fairly conclude that the employees do not care enough about their jobs or the municipalities do not care enough about the transportation facilities furnished by the road to justify its further operation. It will thus be fully demonstrated that there is no economic justification for the further continuance of the road."

The court has extended until October 15 the time in which a reorganization plan must be filed.

Power Conference Banquet to Be Held in Washington Station

The official banquet of the Third World Power Conference in Washington, D. C., on September 10 will be held in Union Station—the only place in the city large enough to house it, Morris L. Cooke, Chairman of the Conference executive committee, has announced. The main waiting room of the station will be redecorated and converted for the evening into a banquet hall to be used in the entertainment of what, the announcement says, will be the largest dinner party Washington has ever seen. The Power Conference will be attended by representatives of 50 nations who will gather during the week September 7-12.

In making preparations for the banquet it was necessary to provide for a possible attendance of 3,000. No hotel or available hall could be found in the city which could accommodate such an assemblage in one room. Dr. William McClellan, president of the Potomac Electric Power Company, undertook, as chairman of the entertainment committee of the Conference, negotiations with the Union Terminal Company, which operates the station. All railroads using the station having agreed to its use, the Union Terminal Company has given final approval. The main waiting room will be closed to passengers only for eight or ten hours on the day of the banquet, but railroad traffic will not be interrupted. The ticket room and all usual facilities for passengers' use and comfort will be fully available.

To transform the waiting room into a banquet hall, all the benches will be taken out and a partition will then be erected around the entire room, leaving between the partition and the walls of the waiting room an eight-foot corridor for passage. These partitions will be decorated and

pictures of scientists will be hung in the room. The kitchens of the station will be used for the banquet and the present dining facilities will be taken over, supplemented by electrical appliances needed for the service of such a dinner.

Acoustics tests have been made at the station and equipment will be installed to overcome any acoustical defects. The Washington station, the announcement points out, is well adapted to such an occasion—the building is a monumental structure, and the waiting room has a clear width of 120 ft. and is 219 ft. long; and the ceiling is 96 ft. wide.

Meetings & Conventions

The following list gives names of secretaries, date of next or regular meetings, and places of meetings:

AIR BRAKE ASSOCIATION.—T. L. Burton, Room 3400, Empire State Bldg., New York, N. Y. Annual meeting, September 15-16, 1936, Hotel Sherman, Chicago, Ill.

ALLIED RAILWAY SUPPLY ASSOCIATION.—F. W. Venton, Crane Company, 836 S. Michigan Ave., Chicago, Ill. To meet with Air Brake Association, Car Department Officers' Association, International Railway Master Blacksmith's Association, International Railway Fuel Association, International Railway General Foremen's Association, Master Boiler Makers' Association and the Traveling Engineers' Association.

AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, F. T. R., M. & O. R. R., Chicago, Ill.

AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. L. Duncan, 816 McCormick Bldg., Chicago, Ill. Annual meeting, October 27-29, 1936, New Orleans, La.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—W. C. Hope, C. R. R. of N. J., 143 Liberty St., New York, N. Y. Annual meeting, November 12-13, New Orleans.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Union Station, St. Louis, Mo. Annual meeting, June 15-17, 1937, Chicago, Ill.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Special meeting, October 9-10, 1936, Detroit Mich. Annual meeting, January 15-16, 1937.

AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill. Annual meeting, October 5-8, 1936, Royal York Hotel, Toronto, Ontario.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill. Annual meeting, October 20-22, 1936. Hotel Stevens, Chicago, Ill. Exhibit by Bridge and Building Supply Men's Association.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York, N. Y.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—R. G. Buford, Asst. Mgr., Industrial Development Dept., M-K-T R. R., Dallas, Tex. Next meeting, October 8-9, 1936, Dearborn Inn, Dearborn, Mich.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in co-operation with the Association of American Railroads, Division IV.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1937, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—H. L. Jones (Acting Secretary), Louisville & Nashville R. R., Louisville, Ky. Meeting, October 9-10, 1936, Detroit, Mich. (tentative).

AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.—G. G. Macina, C. M., St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill. Annual meeting, September 17-18, 1936, Hotel Sherman, Chicago, Ill.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—R. E. Schindler, Union Trust Bldg., Washington, D. C.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y. Meeting, September 16-19, 1936, Hotel Niagara, Niagara Falls, N. Y. Railroad Division.—Marion B. Richardson, 192 E. Cedar St., Livingston, N. J.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Hecker, 292 Madison Ave., New York, N. Y. Annual meeting, September 21-24, 1936, The Greenbrier Hotel, White Sulphur Springs, W. Va.

AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C. Annual meeting, January 26-28, 1937, New Orleans, La.

ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington, D. C.

Operations and Maintenance Department.—J. M. Symes, Vice-President, Transportation Bldg., Washington, D. C.

Division I.—Operating.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Freight Station Section.—R. O. Wells, Freight Agent, Illinois Central Railroad, Chicago, Ill.

Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Next meeting, October 6-8, 1936, Mayflower Hotel, Washington, D. C.

Division II.—Transportation.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Division IV.—Engineering.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1937, Palmer House, Chicago, Ill.

Construction and Maintenance Section.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1937, Palmer House, Chicago, Ill.

Electrical Section.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill. Annual meeting, October 27-28, 1936, Hotel Sherman, Chicago, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y. Annual meeting, March 15-16, 1937, Hotel Stevens, Chicago, Ill.

Division V.—Mechanical.—V. R. Hawthorne, 59 E. Van Buren St., Chicago, Ill.

Division VI.—Purchases and Stores.—W. J. Farrell, 30 Vesey St., New York, N. Y.

Division VII.—Freight Claims.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, 1937, Toronto, Ontario, Canada.

Division VIII.—Motor Transport.—George M. Campbell, Transportation Bldg., Washington, D. C.

Car Service Division.—C. A. Buch, Transportation Bldg., Washington, D. C.

Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.

Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.

Accounting Division.—E. P. Ford, Transportation Bldg., Washington, D. C.

Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Chief Clerk and Claim Agent, General Claims Dept., Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, May, 1937, Cincinnati, Ohio.

ASSOCIATION OF RAILWAY ELECTRICAL ENGINEERS.—Jos. A. Andreucetti, C. & N. W. Ry., 1519 Daily News Bldg., 400 W. Madison St., Chicago, Ill. Annual meeting, October 27-29, 1936, Hotel Sherman, Chicago, Ill. Exhibit by Railway Electrical Supply Manufacturers' Association.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—W. S. Carlisle, National Lead Company, 900 W. 18th St., Chicago, Ill. Meets with American Railway Bridge and Building Association.

CANADIAN RAILWAY CLUB.—C. R. Crook, 2271 Wilson Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month, except June, July and August, Windsor Hotel, Montreal, Que.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—A. S. Sternberg, M. C. B. Belt Ry. of Chicago, 7926 S. Morgan St., Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 2514 W. 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill. Next meeting, September 14.

CAR FOREMEN'S ASSOCIATION OF ST. LOUIS, MO.—E. C. Bishop, Illinois Central System, East St. Louis, Ill. Regular meetings, third Tuesday of each month except June, July and August, Hotel Statler, of St. Louis, Mo.

CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler, Buffalo, N. Y. Next meeting, September 10.

INTERNATIONAL RAILWAY FUEL ASSOCIATION.—T. D. Smith, 1660 Old Colony Bldg., Chicago, Ill. Annual meeting, September 17-18, 1936, Hotel Sherman, Chicago, Ill.

INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION.—Wm. Hall, 1061 W. Wabasha St. Winona, Minn. Annual meeting, September 15-16, 1936, Hotel Sherman, Chicago, Ill.

INTERNATIONAL RAILWAY MASTER BLACKSMITHS' ASSOCIATION.—W. J. Mayer, Michigan Central R. R., Detroit, Mich. Annual meeting, September 17-18, 1936, Hotel Sherman, Chicago, Ill.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y. Annual meeting, September 16-17, 1936, Hotel Sherman, Chicago, Ill.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Clyde S. Bailey, 810 18th St., N. W., Washington, D. C. Annual meeting, November 10-13, 1936, Atlantic City, N. J.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—C. H. White (Pres. and Sec'y), Room 1826, 208 S. La Salle St., Chicago, Ill. Exhibit at A. R. E. A. Convention, March 16-18, 1937, The Coliseum, Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Copley-Plaza Hotel, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Friday of each month, except June, July and August, 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings, second Thursday of each month, alternately at San Francisco and Oakland, excepting June at Los Angeles and October at Sacramento. Next meeting, September 11, Fresno, Cal.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton (Treas. and Asst. Sec'y), First National Bank Bldg., Chicago, Ill. Annual meeting November, 1936, Hotel Commodore, New York, N. Y.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRICAL SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill. Meets with Association of Railway Electrical Engineers.

RAILWAY FIRE PROTECTION ASSOCIATION.—P. A. Bissell, 40 Broad St., Boston, Mass. Annual meeting, October 20-21, 1936 Congress Hotel, Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa. Meets with Mechanical Division, Purchases and Stores Division, and Motor Transport Division, Association of American Railroads.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. A. R., Division I.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 1438 Syndicate Trust Bldg., St. Louis, Mo.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—T. F. Donahoe, Gen. Supvr. Road, Baltimore & Ohio, Pittsburgh, Pa. Annual meeting, September 15-17, 1936, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R., Signal Section.

SOCIETY OF OFFICERS, UNITED ASSOCIATIONS OF RAILROAD VETERANS.—M. W. Jones, Baltimore & Ohio, Mt. Royal Station, Baltimore, Md. Annual meeting, October 3-4, 1936, Hotel Fort Shelby, Detroit, Mich.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga. Next meeting, September 17.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—R. G. Parks, A. B. & C. R. R., Atlanta, Ga.

TOOL FOREMEN SUPPLIERS' ASSOCIATION.—E. E. Caswell, Union Twist Drill Co., 11 S. Clinton St., Chicago, Ill. Meets with American Railway Tool Foremen's Association.

TORONTO RAILWAY CLUB.—R. H. Burgess, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—D. I. Higgins, Gardner-Denver Company, 332 S. Michigan Ave., Chicago, Ill. Meets with Roadmasters' and Maintenance of Way Association.

TRAVELING ENGINEERS' ASSOCIATION.—Miss E. Earl, acting secretary, 10213 Hamden Avenue, Cleveland, Ohio. Annual meeting September 15-16, 1936, Hotel Sherman, Chicago, Ill.

WESTERN RAILWAY CLUB.—C. L. Emerson, C. M., St. P. & P., Chicago, Ill. Regular meetings third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

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ONE OF THE NEW 2-8-2 FOR THE

WEIGHT IN WORKING ORDER, POUNDS				
On Drivers	Eng. Truck	Trailer Truck	Total Engine	Tender Loaded
208,500	40,000	52,500	301,000	207,400

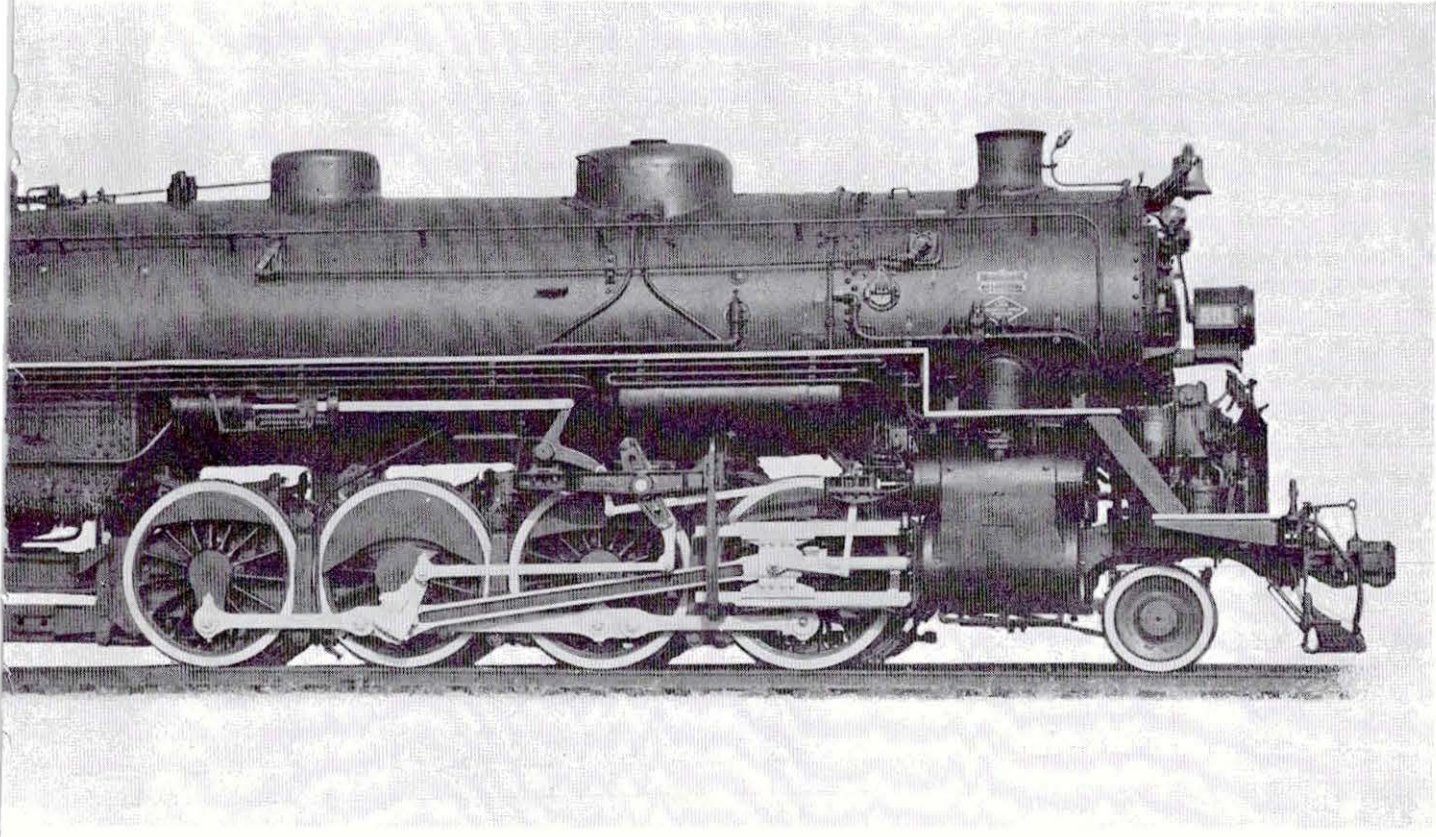
WHEEL BASE			TRACTIVE POWER	
Driving	Engine	Engine and Tender	Main Cylinders	With Booster
16'9"	36'11'	72'6"	54,800	71,300

BOILER		CYLINDERS		GRATE AREA 60.1 Sq. Ft.
Diameter	Pressure	Diameter	Stroke	Driving Wheel Dia.
85¾"	240 lbs.	23"	32"	63"

LIMA LOCOMOTIVE WORKS INCORPORATED

LIMA

MIKADO TYPE LOCOMOTIVES LOUISIANA & ARKANSAS



L&A THE BETTER WAY LINES

One of 5 Modern Mikado Type Locomotives just completed by Lima Locomotive Works, Incorporated, for the Louisiana and Arkansas Railway Company.

LOCOMOTIVE WORKS, INCORPORATED
LIMA OHIO

Supply Trade

R. B. Nichols, manager of the Chicago office of the **Bantam Ball Bearing Company,** has been promoted to manager of the Industrial Bearing division.

Hoyle Jones, formerly president of the Superior Tube Company, has been appointed district sales manager of the **Republic Steel Corporation,** with headquarters in Tulsa, Okla.

N. L. Howard, chairman of the board and president of the **North American Car Corporation,** has resigned as president, and **L. H. S. Roblee,** vice-president in charge of finance and secretary, has been elected president and secretary.

G. I. Wright, chief electrical engineer of the Central of New Jersey and the Reading, with headquarters at Philadelphia, Pa., has resigned and has been appointed transportation sales manager and manager of the transportation division of the **Westinghouse Electric & Manufacturing Company,** with headquarters at East Pittsburgh, Pa.

George W. Norris, Philadelphia, Pa., former governor of the Federal Reserve Bank of Philadelphia, and **Matthew S. Sloan,** New York, chairman of the board and president of the Missouri-Kansas-Texas, have been elected directors of the **Edward G. Budd Manufacturing Company,** Philadelphia, to fill vacancies on the board. Mr. Norris also was elected chairman of the finance committee, consisting of himself, Mr. Sloan and W. W. Colpitts, of New York.

The McIntosh & Seymour Corporation, Auburn, N. Y., a wholly owned subsidiary of the **American Locomotive Company,** has been merged with the parent company and the business heretofore conducted by that corporation is now carried on by the **American Locomotive Company, Diesel Engine Division,** Auburn. In the merger the American Locomotive Company has acquired the assets of the McIntosh & Seymour Corporation, including the manufacturing plant at Auburn, sales orders and contracts, and the operating, sales and administrative personnel, and has assumed all the liabilities, including contracts and orders for the purchase of materials and supplies. **Robert B. McColl,** president of the McIntosh & Seymour Corporation, has been appointed vice-president of the American Locomotive Company, Diesel Engine Division, and **Henry T. Sherman, John Thomas** and **Heinrich Schneider** have been appointed assistant vice-presidents. The Diesel Engine Division of the American Locomotive Company will continue to build and supply the complete line of McIntosh & Seymour four-cycle Diesel designs. There has also been added the two-cycle Diesel designs of Sulzer Brothers, Winterthur, Switzerland, which are to be built and sold in America under the trade name Alco-Sulzer.

Victor W. Ellet, vice-president of the **Hunt-Spiller Manufacturing Corporation,** Boston, Mass., has been elected president and general manager and **Elbert J. Fuller,** sales manager, has been elected vice-president. Mr. Ellet was born on June 11, 1880, at Burlington, Iowa. In 1886 his parents moved to Fort Madison, Iowa, where he was educated in the public schools, and Johnson's Business College. He later took the railroad engineering course in the International Correspondence School. He served his apprenticeship as machinist with the Atchison, Topeka & Santa Fe at Fort Madison, completing the & Southern (Missouri Pacific), Fort Worth & Denver City, and the old Choctaw, Oklahoma & Gulf, now a part of the Chicago, Rock Island & Pacific, returning later to the Santa Fe at Fort Madison. He also served as expert tool maker in the apprenticeship in 1901. After this time he worked for the St. Louis, Iron Mountain United States arsenal at Rock Island, Ill. In 1905 he returned to railroad service as

Victor W. Ellet

mechanical foreman on the Missouri Pacific at Hoisington, Kan. The following year he entered the service of the Chicago, Rock Island & Pacific as an executive in the mechanical departments at Valley Junction, Iowa; Fairbury, Neb.; Chicago, and Rock Island, Ill. In 1911 he entered the employ of Hunt-Spiller Manufacturing Corporation as mechanical representative; he was appointed sales manager in 1925, vice-president in 1928, and now becomes president and general manager, succeeding the late John G. Platt. Mr. Ellet is a member of the executive committee of the Railway Supply Manufacturers Association, and a member of a number of railroad and engineering clubs.

Elbert J. Fuller was born in 1883 at Clinton, Iowa, where he was educated in the public schools. At an early age he entered the service of the Chicago & North Western as a machinist's apprentice at Clinton. After completing his apprenticeship, he remained at Clinton as machinist and later was appointed in a supervisory capacity in the mechanical department. During the years 1911, 1912 and 1913 he was chief inspector of new equipment for the Chicago & North Western at the works of the American Locomotive Company, Schenectady, N. Y. He left railroad service on April 1, 1914, to enter the employ of the Hunt-Spiller Manufacturing Corporation. He served as mechanical representative until his appointment as assistant sales manager October 1, 1927, holding this position until March 21, 1928,

(c) Bachrach

Elbert J. Fuller

when he became sales manager. In addition to his present capacity as vice-president, Mr. Fuller has been appointed sales manager.

A. R. Ellis, whose election as president and director of the **Pittsburgh Testing Laboratory,** Pittsburgh, Pa., was announced in the *Railway Age* of August 29, was born at Pittsburgh and educated in the public schools of that city. He is a graduate of Cornell University, where he received the degree of civil engineer in 1905. During the same year he became a laboratory technician in the employ of the Pittsburgh Testing Laboratory, later becoming an inspector of engineering materials and finally, in 1910, chief engineer. In 1917 he was appointed manager of the New York branch of the

Johnston Studio

A. R. Ellis

Pittsburgh Testing Laboratory; in 1918, assistant general manager; in 1921, general manager and director, and in 1929, vice-president and director. Mr. Ellis is a member of a number of technical societies, including the American Society of Civil Engineers; American Society for Testing Materials; American Welding Society, and Technical Advisory Board of the American Institute of Steel Construction.

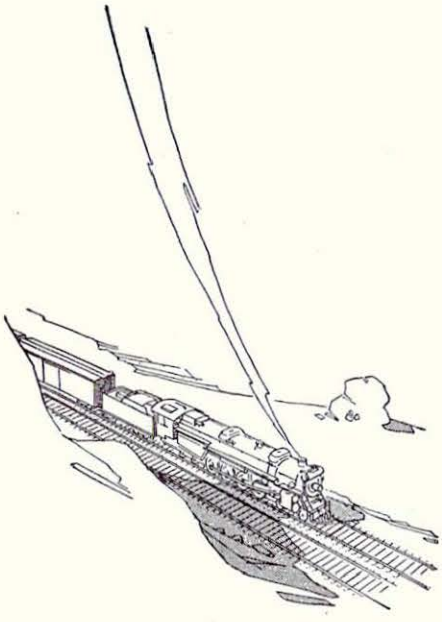
E. M. Harshbarger, who has been connected with the railway division of

Continued on next left-hand page

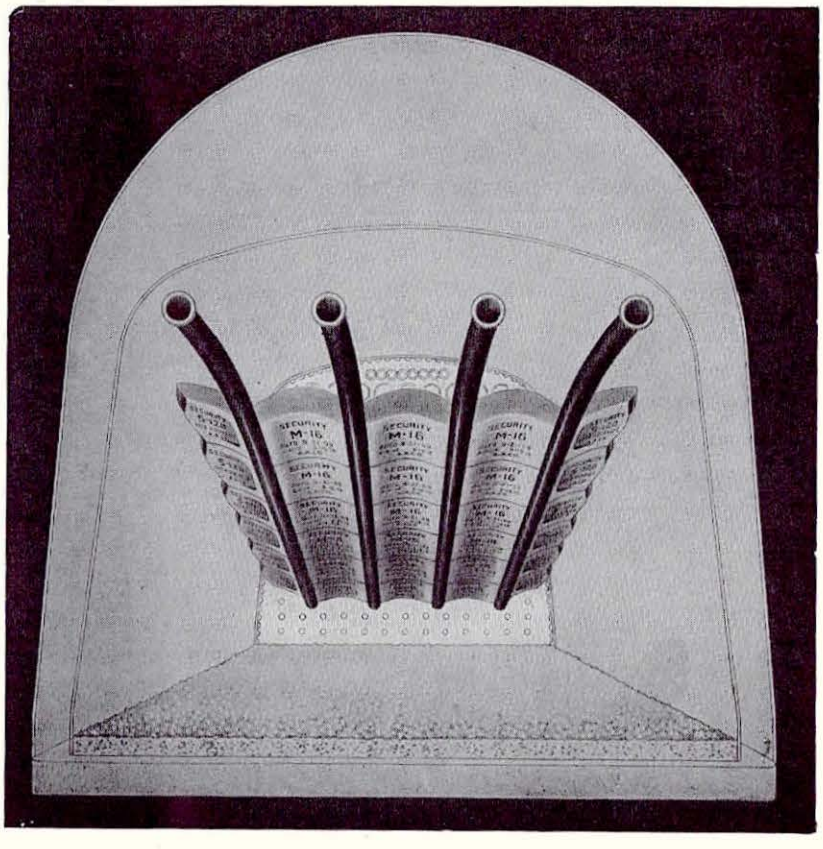
SECURITY ARCH BRICK

The engineering design of the Security Brick Arch embodies years of experience in locomotive operation, constant study of combustion problems and careful research into refractory materials.

In every way Security Brick Arches are made to render in the locomotive firebox, maximum fuel economy at minimum cost.

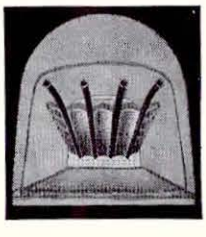


There's More to
SECURITY ARCHES
Than Just Brick



HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO.
INCORPORATED

Locomotive Combustion Specialists » » »

SKF Industries, Inc., since early in 1927, was promoted, on September 1, to manager of railway sales, with headquar-

E. M. Harshbarger

ters at the home office of the company, Philadelphia, Pa. Mr. Harshbarger attended Purdue University and for several years prior to joining SKF Industries, Inc., was affiliated with S. F. Bowser & Company, Fort Wayne, Ind.

Arthur T. Herr has been appointed vice-president in charge of sales of the **Union Railway Equipment Company**, Chicago, in the territory adjacent to Denver, Colo., with headquarters in the Equitable building, Denver. Mr. Herr began

Arthur T. Herr

his career with the Westinghouse Air Brake Company at Pittsburgh, Pa., and in 1916 organized the A. T. Herr Supply Company at Denver, which company he will continue to head.

OBITUARY

Edward T. Walker, secretary and treasurer of the Chicago Railway Equipment Company, Chicago, died in that city on August 29, after a three months' illness. He was born in Washington, D. C., and obtained his law degree at Columbia university, now a part of George Washington university. In 1889 he became secretary of the National Hollow Brake Beam Company, predecessor of the Chicago Railway Equipment Company.

Equipment and Supplies

LOCOMOTIVES

THE GREAT SOUTHERN LUMBER COMPANY is inquiring for one locomotive of the 2-8-2 type.

THE GREEN BAY & WESTERN, reported in the *Railway Age* of June 20 as inquiring for three locomotives of the 2-8-2 type, has ordered this equipment from the American Locomotive Company. These locomotives will have 22 in. by 30 in. cylinders and a total weight in working order of 280,000 lb.

FREIGHT CARS

THE ARGENTINE STATE RAILWAYS are inquiring for 550 box cars, 100 tank cars and 50 stock cars, all of about 30 tons' capacity. Jorge Castro Madero is stores manager, San Jose 180, Buenos Aires, Argentina, South America.

THE MAINE CENTRAL has ordered 750 cars, including 500 box cars placed with the Magor Car Corporation and 100 gondola cars and 150 twin hopper cars with the Bethlehem Steel Company. This company was reported in the *Railway Age* of June 27 as expecting to enter the market for 800 cars.

IRON & STEEL

THE WABASH has been authorized by the Federal District Court to purchase 5,000 tons of rails, together with necessary accessories, at an aggregate cost of $269,023.

THE CHICAGO GREAT WESTERN has ordered 10,000 tons of rails, placing 8,000 tons with the Carnegie-Illinois Steel Corporation and 2,000 tons with the Inland Steel Company.

Construction

CHICAGO, ROCK ISLAND & PACIFIC.—A contract has been awarded to A. H. Newman, Des Moines, Iowa, for the construction of an 80-ft. by 120-ft. shop building at East Des Moines and an 11-stall addition to its enginehouse at the same point, at a total cost of about $125,000. The shop building will be of brick construction with a timber roof carried on steel trusses, while the enginehouse extension, also of brick construction, will have a frame roof.

SEABOARD AIR LINE.—A contract has been awarded to the Ross and White Company, Chicago, for furnishing and erecting a structural steel coaling plant at Gayce, S. C. This plant will be a duplicate of the coaling station which was constructed for the same company at Elberton, Ga., by the Ross and White Company.

Financial

ABILENE & SOUTHERN.—*Abandonment.*—Examiner C. P. Howard of the Interstate Commerce Commission has recommended in a proposed report that the commission deny this company's application for authority to abandon its line from Hamlin, Tex., to Anson, 17.41 miles, and to abandon operation over the Abilene & Northern from Anson to Abilene, 24.62 miles. The report says there is no great need for the line but that it has not been shown that its operation is a burden on interstate commerce.

ATCHISON, TOPEKA & SANTA FE.—*Acquisition.*—Santa Fe Trails of Illinois, Inc., has applied to the Interstate Commerce Commission for authority to acquire control of the Peoria-Rockford Bus Company by purchase of its capital stock.

BANGOR & AROOSTOOK.—*Stock.*—Stockholders of this company will meet on October 9 to vote on a proposal that the company issue and sell $3,828,000 of $100-par cumulative convertible 5 per cent preferred stock, the proceeds to be used to redeem $3,480,000 of 7 per cent preferred stock now outstanding. The stock would be convertible into common (par $50) on the ratio of one of the preferred to two of common on payment of $5 per share up to 1941, $10 from 1941-46 and $20 thereafter, and the stockholders will be asked to ratify the issuance of additional common stock as necessary to provide for this conversion. The new issue would be redeemable at 110 and the company plans to pay an underwriting fee for the issue of not more than $70,000 plus $1.50 per share of stock taken by the bankers. If the transaction is made effective, the company will save $50,000 annually in preferred dividend payments.

BOSTON & MAINE.—*Abandonment.*—Examiner R. R. Molster of the Interstate Commerce Commission has recommended in a proposed report that the commission authorize the abandonment of the Ashburnham branch, from South Ashburnham, Mass., to Ashburnham, 2.64 miles.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Abandonment.*—Examiner Jerome K. Lyle of the Interstate Commerce Commission has recommended in a proposed report that the commission authorize the abandonment of a branch line from Scotland Junction, S. D., to Tyndall, 11.2 miles, but recommends a finding that public convenience and necessity have not been shown to permit the abandonment of the segment from Marion Junction, S. D., to Freeman, 10 miles.

CHICAGO UNION STATION.—*Bonds.*—The Interstate Commerce Commission has authorized this company to issue $7,000,000 of 3¼ per cent bonds (guaranteed by the proprietary companies), maturing 1951, to be sold to a banking group headed by Kuhn, Loeb & Co. at 100¼ (making the interest cost 3.48 per cent), the proceeds to be used to redeem at a premium of 5 per cent an equal amount of 5 per cent

Continued on next left-hand page

The Superheater

AS A FACTOR IN LOCOMOTIVE DESIGN

Each of the following features is being discussed in this series of advertisements.

Maximum Ton Miles per Hour

•

Boiler Capacity and Tractive Effort

•

Heating Surface and Boiler Capacity

•

Heating Surface and Boiler Efficiency

•

Minimum Draft Loss and Low Back Pressure

•

High Sustained Superheat

•

Higher Superheat and Minimum Steam Consumption

•

Greater Sustained Capacity

•

Reduced Fuel and Water Consumption per Unit of Work Done

•

Total Fuel Consumption of American Railroads

•

Reduced Cost of Locomotive Horsepower

For High Efficiencies Use Elesco Type "E" Superheaters

✓
✓
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11

Reduced Cost of Locomotive Horsepower

The type "E" superheater will make it possible for a given dimension of locomotive to develop the higher sustained maximum horsepower, and it will do this for less fuel cost per unit of power developed.

It has been shown before that a 20% increase in the maximum sustained power of a locomotive can be accomplished by the use of type "E" superheaters. While a type-"E"-equipped locomotive will cost slightly more than one equipped with an older style of superheater, the opportunity of obtaining a locomotive 20% larger means that four locomotives equipped with type "E" superheaters will do the work of five locomotives not so equipped.

A locomotive costing $105,000, equipped with a type "A" superheater, developing 3500 hp., costs $30.00 per horsepower. If equipped with a type "E" superheater boiler, a 20% increase in capacity is obtained, or 750 hp. This additional horsepower capacity is obtained for less than $5.00 per hp., or one-sixth of the cost, if this additional hp. is purchased in the form of an entire locomotive of old type "A" design.

THE SUPERHEATER COMPANY

Representative of American Throttle Company, Inc.

60 East 42nd Street
NEW YORK

ELESCO

Peoples Gas Building
CHICAGO

Canada: The Superheater Company, Limited, Montreal

Superheaters • Superheated Steam Pyrometers • Exhaust Steam Injectors • Feed Water Heaters • American Throttles

A-1087

bonds due 1944, thereby saving the company a net total of $876,750 in interest charges during the next 8 years.

LEHIGH & NEW ENGLAND.—*Notes.*—The Interstate Commerce Commission has authorized this company to issue $1,000,000 of serial notes, issue of 1936, bearing interest varying from ¾ per cent (1937 maturities) to 3 per cent (1943 maturities), to be sold at par to Drexel & Co. and the proceeds used to retire an equal amount of 4 per cent equipment trust series H certificates.

LOS ANGELES & SALT LAKE.—*Abandonment.*—This company has renewed its application to the Interstate Commerce Commission for a certificate authorizing the abandonment of the branch line from Milford, Utah, to Newhouse, 22.37 miles, asking the commission to set aside its order of February 15, 1936, dismissing the application.

MAINE CENTRAL.—*Abandonment.*—The Interstate Commerce Commission has authorized this company to abandon a line extending from Austin Junction, Me., to Kineo, 51.4 miles.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—*Notes.*—More than 94 per cent of this company's 6 per cent secured notes which matured August 1 have been deposited under the extension agreement (new maturity February 1, 1938, interest 5 per cent), it has been announced by the company.

MISSOURI & KANSAS.—*Abandonment.*—Examiner R. R. Molster of the Interstate Commerce Commission has recommended in a proposed report that the commission deny this company's application for authority to abandon its electric railroad line from Kansas City to Olathe, Kan., 24 miles.

PENNSYLVANIA.—*Bonds.*—The Interstate Commerce Commission has authorized this company to sell $20,000,000 of general mortgage series C 3¾ per cent bonds to Kuhn, Loeb & Co. at 99½, which will make the average annual interest cost to the company 3.78 per cent. The issue, which is provided with a sinking fund, will mature in 1970.

Delaware Bridge Bonds.—The commission has authorized the Delaware River R.R. & Bridge Company to extend to 1946 the maturity date of $1,005,000 of 3½ per cent first mortgage bonds, which matured August 1, 1936, the issue being guaranteed by the Pennsylvania.

PITTSBURGH & WEST VIRGINIA.—*Securities.*—The Interstate Commerce Commission has authorized this company to issue a 3 per cent promissory note (secured by $450,000 of first mortgage bonds) maturing three years hence to the First National Bank of Chicago. (Two other loans, one of $150,000 and another of $250,000, have been made from this bank without I. C. C. permission being required.) The proceeds of all these loans will be used to pay indebtedness to the Union Trust Company of Cleveland and the Pennroad Corporation.

WISCONSIN CENTRAL.—*Equipment Trust Certificates.*—The receiver has applied to the Interstate Commerce Commission for authority for an issues of $575,000 of ten-year equipment trust certificates.

Average Prices of Stocks and of Bonds

	Sept. 1	Last week	Last year
Average price of 20 representative railway stocks..	54.66	53.28	35.89
Average price of 20 representative railway bonds..	81.48	81.20	73.92

Dividends Declared

Dover & Rockaway.—6 Per Cent Guaranteed, $3.00, semi-annually, payable October 1 to holders of record September 30.

Erie & Pittsburgh.—7 Per Cent Guaranteed, 87½c, quarterly, payable September 10 to holders of record August 31.

Lackawanna R. R. of New Jersey.—4 Per Cent Guaranteed, $1.00, quarterly, payable October 1 to holders of record September 5.

New York, Lackawanna & Western.—5 Per Cent Guaranteed, $1.25, quarterly, payable October 1 to holders of record September 12.

Railway Officers

FINANCIAL, LEGAL AND ACCOUNTING

J. K. Thompson, comptroller of the Erie, with headquarters at Cleveland, Ohio, has been elected vice-president and assistant to the president to succeed **L. L. White,** who has been appointed president of the Pittston Company, operator of coal mining facilities, with headquarters at Cleveland, and has been succeeded by **T. J. Tobin,** assistant comptroller, at Cleveland. John K. Thompson was born at

John K. Thompson

Paterson, N. J., on March 13, 1892, and received his education in the schools of that city and New York University School of Commerce, Accounts and Finance. He entered railway service with the Erie in 1907 in the office of the auditor of traffic, was transferred in 1913 to the office of the comptroller and general auditor, and held successively the positions of bookkeeper, statistician, assistant chief clerk and chief clerk. In 1918 he served as office accountant for the United States Railroad Administration at Washington, D. C., returning to the Erie in November of that year as general accountant. Mr. Thompson was appointed assistant to comptroller in 1920, assistant comptroller in 1923, and was elected comptroller in 1931. He held that position until his recent election as vice-president and assistant to president, with headquarters at Cleveland. Included in his new duties will be supervision of the accounting, purchasing and industrial development departments.

Thomas J. Tobin was born at Bloomington, Ill., on October 25, 1889, and was educated in grammar school, high school and business college there. He studied accountancy and finance at New York

Thomas J. Tobin

University. Mr. Tobin began his railroad career in the division offices of the Chicago & Alton (now Alton) at Bloomington, Ill., in 1908. In 1913, he was transferred to the general offices at Chicago and served successively as chief, bureau of division accounts, and chief clerk to the comptroller. In 1918 he accepted an appointment with the Interstate Commerce Commission as accountant in charge of financial investigations under the Valuation Act of March 1, 1913. On June 1, 1922, he joined the Erie as valuation accountant, was appointed general accountant on February 16, 1930, and assistant comptroller on April 1, 1931, which position he held until his recent election as comptroller.

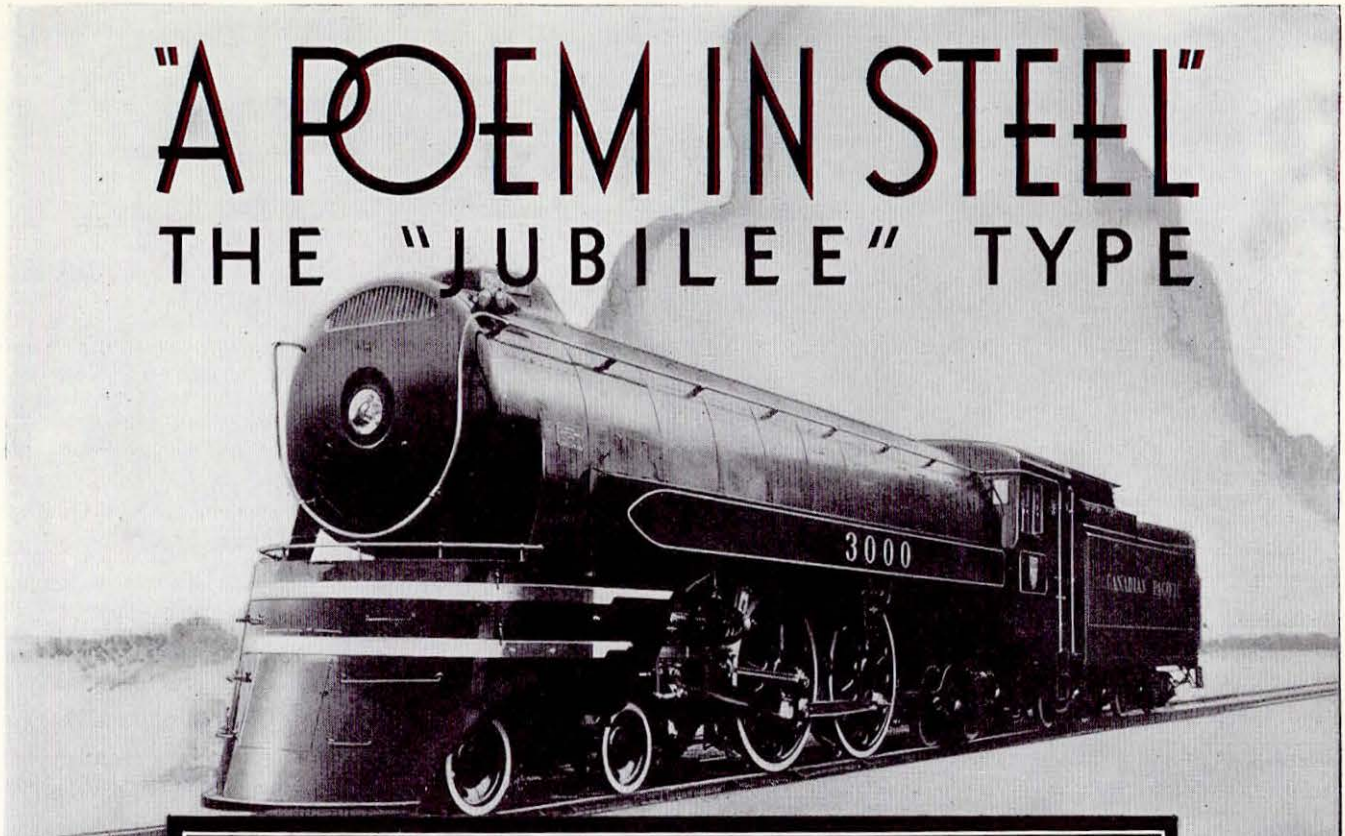
OPERATING

C. E. Chamberlin, division superintendent of the Reading, has been appointed special representative, operating department, with headquarters as before at Reading, Pa. **J. T. Sturman,** assistant to general superintendent at Reading, has been appointed superintendent of the Reading division, succeeding Mr. Chamberlin. **F. W. Biltz,** assistant division engineer, with headquarters at Reading, has been appointed assistant to general superintendent, succeeding Mr. Sturman. **N. N. Baily,** assistant division superintendent, with headquarters at Philadelphia, Pa., has been appointed assistant superintendent of the Reading division. **E. F. Keene** has been appointed assistant superintendent

Continued on next left-hand page

"A POEM IN STEEL"

THE "JUBILEE" TYPE



"THIS occasion, in truth, marks the beginning of a new era in the Canadian transportation field. We have here a new engine, a locomotive designed and built in keeping with our modern needs. It is progress within the best meaning of that term, and as such is important. . . . This, as you are all aware, is the Fiftieth Anniversary year of the Canadian Pacific Railway's transcontinental passenger service. During those fifty years the construction, operation, and maintenance of the steam locomotive played an important part in the development of our country and the Canadian Pacific Railway Company. It is fitting therefore, and I believe a matter for proper pride, that in constructing a new type of locomotive the company should honor it and the progress it represents by naming it the Jubilee type."

Sir Edward Beatty, G.B.E., K.C., LL.D.
Chairman and President, in accepting the new flying ace of the steel rails on behalf of the company.

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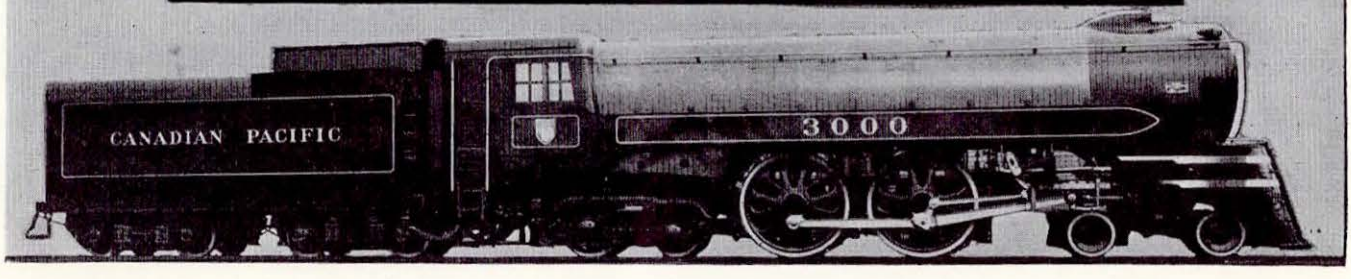
MONTREAL CANADA



of the Philadelphia division, succeeding Mr. Baily.

TRAFFIC

Thomas Jefferson, Jr., commerce agent on the Chesapeake & Ohio at Richmond, Va., has been promoted to assistant general freight agent at Chicago, to succeed **F. J. Vanderblue,** deceased.

G. L. Kenny has been appointed general agent, freight department, for the Denver & Rio Grande Western and the Western Pacific, with headquarters at New York, to succeed **W. G. Trufant,** deceased.

A. E. Drake has been appointed general agent on the Fort Worth & Denver City (part of the Burlington system), with headquarters at Abilene, Tex., to succeed **R. A. Craig,** who has been transferred to Dallas, Tex. Mr. Craig succeeds **T. V. Murray, Jr.,** who has been appointed general agent for the Burlington with the same headquarters.

J. D. Whitman, general agent, freight and passenger departments, Gulf, Colorado & Santa Fe, with headquarters at San Antonio, Tex., has been appointed industrial agent, with headquarters at Galveston, Tex., succeeding **T. E. Brazelton,** retired. **C. H. Hull** has been appointed general agent, freight and passenger departments at San Antonio, succeeding Mr. Whitman.

T. M. Shalloe, general agent for the New York Central System, with headquarters at Buffalo, N. Y., has been appointed division freight agent at Rochester, N. Y., succeeding **R. K. Horton,** whose appointment as coal freight agent at New York was noted in the *Railway Age* of August 29. **S. A. R. Lancto** has been appointed general agent at Buffalo, succeeding Mr. Shalloe.

E. M. Kain, assistant general freight agent of the Erie, with headquarters at Buffalo, N. Y., retired September 1, and has been succeeded by **J. T. McEntee,** assistant general eastern agent, with headquarters at New York, who in turn has been succeeded by **D. R. Thompson,** general agent at Minneapolis, Minn. **C. V. Harrow,** general agent at Omaha, Neb., has been transferred to Minneapolis to succeed Mr. Thompson, and **C. L. Cox,** general agent at Des Moines, Iowa, has been transferred to Omaha. **C. A. Stoeber,** division freight agent with headquarters at Youngstown, Ohio, has been promoted to assistant general freight agent with the same headquarters, a newly created position, and has been succeeded by **F. W. Fischer,** general agent at Columbus, Ohio.

Herbert W. Ward, who has been appointed traffic manager of the Minneapolis & St. Louis, with headquarters at Minneapolis, Minn., as reported in the *Railway Age* of August 22, was born on April 23, 1894, at Spooner, Wis. Mr. Ward is a graduate of the Minnesota College of Law, where he attended night classes, obtaining the degree of LL.B. in 1934. He first entered railway service in 1908, as a clerk in the tariff department of the M. & St. L., leaving this company

Herbert W. Ward

in the following year to go with the Chicago, St. Paul, Minneapolis & Omaha as a clerk. From 1910 to 1924, he served as a brakeman and freight conductor on the Northern division of the Omaha, then being appointed traveling freight agent, with headquarters at Duluth, Minn. In 1930 Mr. Ward was appointed city freight agent at Minneapolis and on February 11, 1935, he went with the M. & St. L. as general freight agent, being appointed acting traffic manager of this company on April 1, 1936. His appointment as traffic manager became effective on August 1.

Walter A. Hein, district freight agent on the Northern Pacific at Fargo, N. D., who has been appointed general perishable freight agent, with headquarters at St. Paul, Minn., as reported in the *Railway Age* of August 29, has been identified with this company for 23 years. He first entered the service of the Northern Pacific in 1913, as an agent-operator at Esmond, N. D., later serving in the same capacity at Maddock, N. D., McKenzie and Stanton. In 1914, Mr. Hein was appointed

Walter A. Hein

agent at Jamestown, N. D., and in 1928 he was transferred to Fargo. He has held the position of district freight agent at Fargo since November, 1935.

ENGINEERING AND SIGNALING

S. R. Negley, assistant engineer, electrical and signal department of the Reading, with headquarters at Philadelphia, Pa., has been appointed electrical engineer of the Central of New Jersey and the Reading, succeeding **G. I. Wright,** chief electrical engineer of these roads, who has resigned to become transportation sales manager and manager of the transportation division of the Westinghouse Electric & Manufacturing Company. The position of chief electrical engineer has been abolished. **P. A. McGee** has been appointed assistant electrical engineer and the position of assistant engineer has been abolished.

OBITUARY

Moses Burpee, consulting engineer of the Bangor & Aroostook, whose death on August 18 was noted in the *Railway Age* of August 29, was born in 1847 at Sheffield, N. B. He entered railway service in 1869 as a rodman on the European & North American (now the Atlantic divi-

Moses Burpee

sion of the Canadian Pacific). He served subsequently as junior assistant and station agent of the same road until 1871. He was then engaged on the location of the Prince Edward Island Railway (now part of the Canadian National) and the New Brunswick (now part of the Canadian Pacific) until December, 1877. In April, 1879, Mr. Burpee entered the service of the Chicago, Milwaukee & St. Paul as a draftsman, and then served until 1883 as assistant engineer and engineer in charge of surveys on the same road. During the summer of 1883 he was with the Canadian Pacific on the construction of the Western division and during 1884 was engineer in charge of surveys on the Central of New Brunswick (now C. P. R.) and the Short Line Railway in Maine. From 1885 until 1891 Mr. Burpee was chief engineer in charge of maintenance of the New Brunswick Railway and the Atlantic division of the Canadian Pacific. In 1891 he became chief engineer of the Bangor & Aroostook, which position he held until January, 1928, when he was appointed consulting engineer.

—said Sir Bradford Leslie, G. M. East Indian Railways, to W. H. Deakin, when the latter tried to interest him in interlocking in 1883. "It may be of service on your busy railways, but here we have no use for it." Undaunted, Deakin surveyed the situation at Burdwan. He found a fair-sized station, a shunting yard and a level crossing for a main road. He prepared an interlocking scheme and saw Sir Bradford again, telling him that the scheme connected up all the points and signals needed in the yard into two signal cabins and that the savings would pay for the installation in less than two years, and that "we will make you a present of the safety part of the scheme." He got the order! » » »

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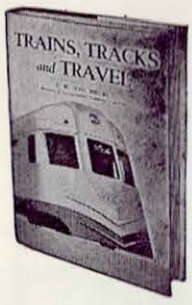

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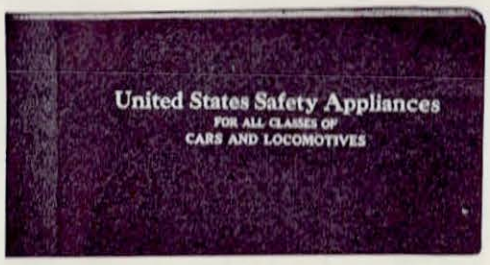

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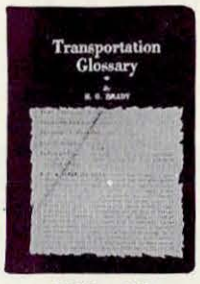
1930. 579 pages, 6 x 9 x 1⅝ inches, cloth. $3.00

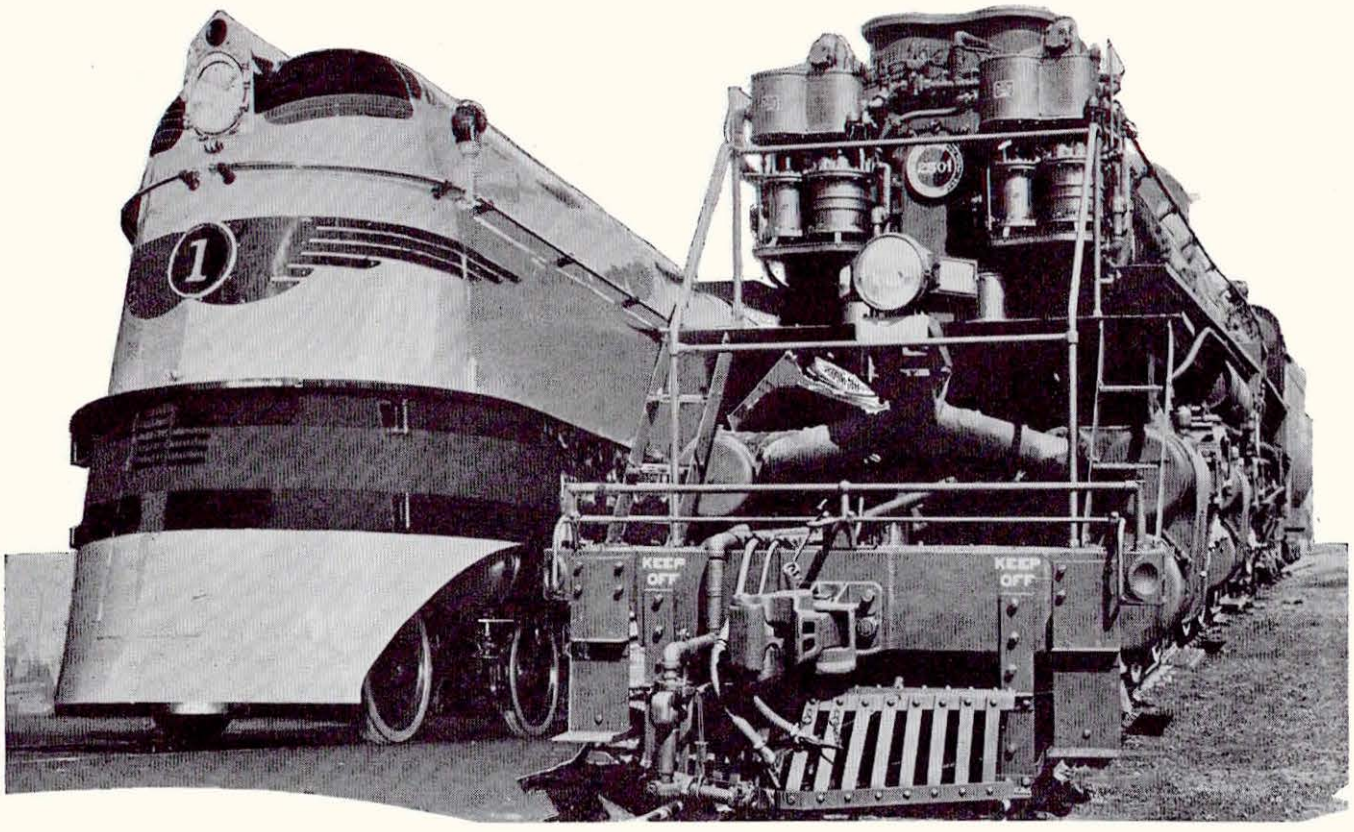
Transportation Glossary

By H. G. BRADY



Technical and semi-technical terms, phrases and expressions in more common use in railway, highway, air and marine transportation, and in port traffic are concisely defined in this handy reference book. Ordinary dictionaries, thesauri and law book sources furnish little information on transportation terms and this book fills a long felt need. It is printed in large clear type and cross references facilitate quick tracing of desired information.

1929. 119 pages, 5 x 7 inches, flexible. $1.75



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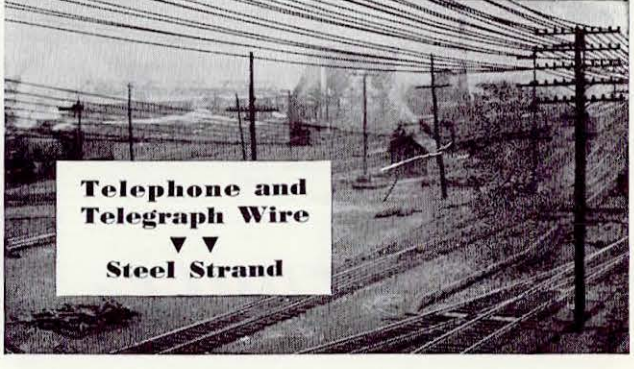

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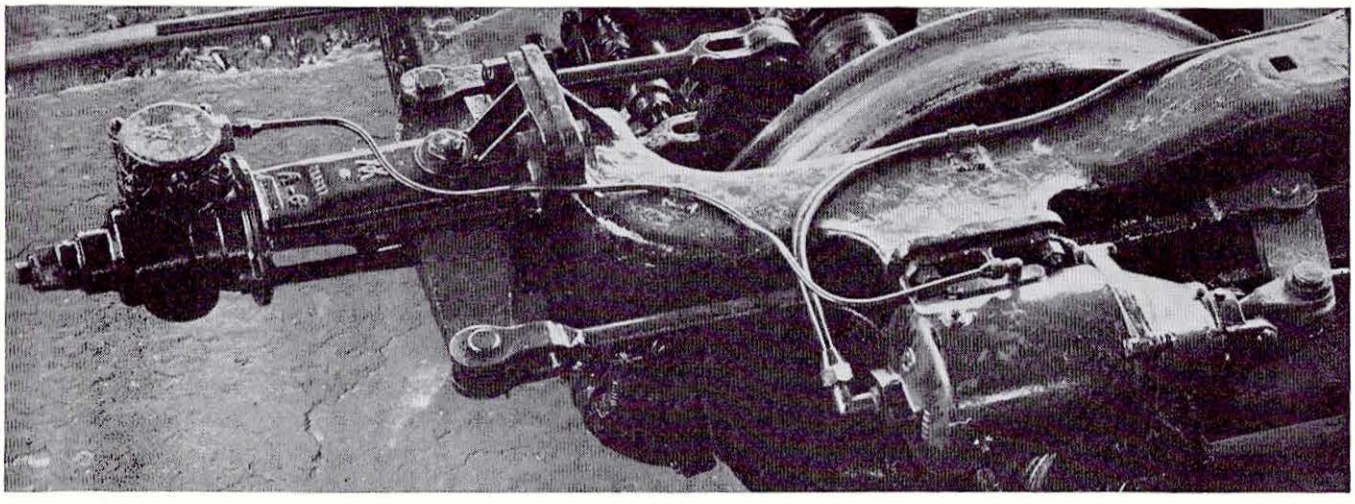

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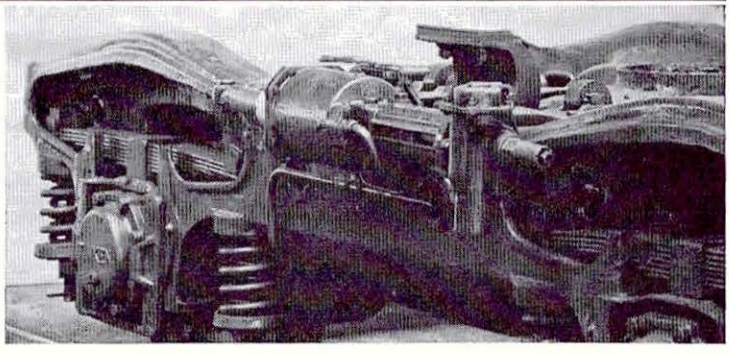

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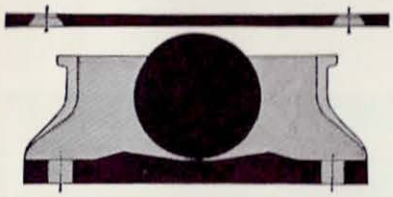

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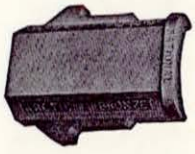

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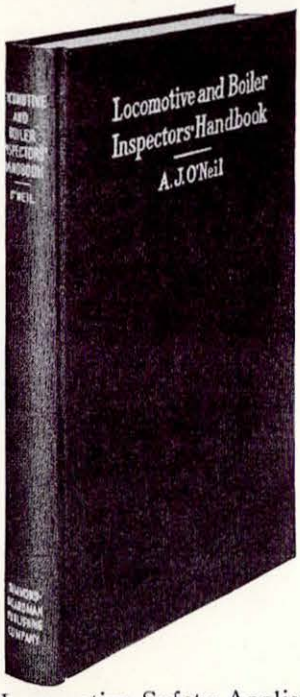

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AFTER THE STREAMLINED TRAINS...

ALCOA

Passenger revenue in 1935 was 10.3% of the total revenue of Class I railways. Freight revenue was 80.6%.

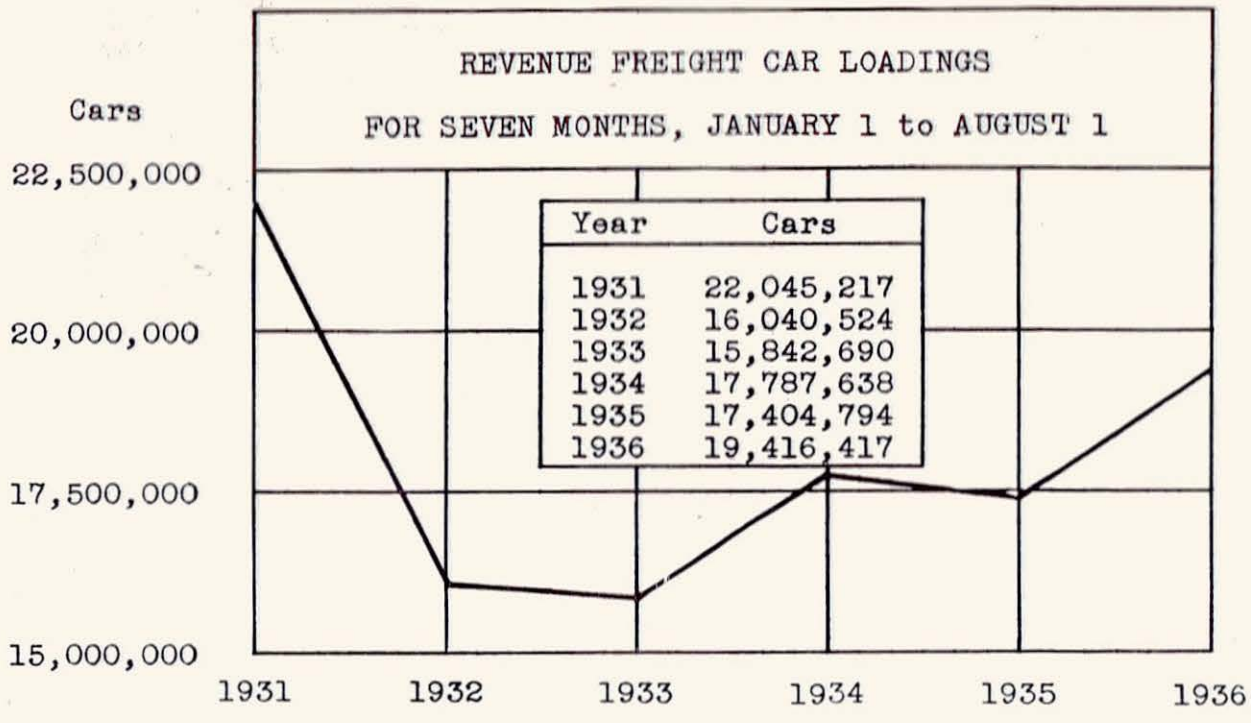
In these familiar figures is a magnificent promise. The new, lightweight passenger trains have made a remarkable success, on the basis of operation and upkeep economy. These same advantages will apply to lightweight rolling stock which carries freight, but the dollars and cents saving can be even greater, almost in the degree that freight traffic exceeds passenger traffic.

Achieving the 5-1 load-to-tare ratio with Alcoa Aluminum Alloys is no visionary dream. Hopper cars which better this figure have been thoroughly tested. They are light, because they are Alcoa Aluminum, and Nature made Aluminum light. They are tough and strong because natural lightness of the material allows the builder to use thick, stiff sections, gaining sturdiness with stiffness and structural rigidity.

That's only half the story for hopper cars: Alcoa Aluminum is so resistant to corrosion from sulphurous leachings and atmospheres that corrosion in Aluminum cars promises to be no problem at all.

Our engineers have kept closely in touch with the development of lighter rolling stock built with Alcoa Aluminum Alloys. Though we do not build railway equipment, we do supply Alcoa Aluminum for the purpose, and will be glad to co-operate in furnishing the latest information on the subject, aid in design, and technical help with fabrication. ALUMINUM COMPANY OF AMERICA, 2178 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM



Increased Freight Car Loadings Suggest Car Retarders

Revenue freight car loadings for the first 30 weeks of 1936 totalled over 19,400,000 cars, which is 11.7 per cent. under the 1931 figure, but 11.9 per cent. above the 1934 loadings.

The gradual increase in car loadings means greater activity in classification yards and terminals where often more crew time is required to switch trains than to run them 100 miles on the road.

Equipping a classification yard with car retarders, involving power operation of track brakes and yard switches instead of manual operation, makes possible a reduction in delay time, an increase in the safety of operation, and a reduction in operating costs.

In the middle west where one classification yard with a daily traffic of 1,125 cars was equipped with car retarders, there was an increase of 14 per cent. in the number of cars humped per hour and an annual saving in operating costs of approximately $145,000.

UNION SWITCH & SIGNAL COMPANY
Swissvale, Pennsylvania

GENERAL RAILWAY SIGNAL COMPANY
Rochester, N. Y.

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HISTORY IN THE MAKING

In a comparison of revenue freight car loadings since 1920, the peak year was 1926 with 53,098,819, the low year was 1932 with 28,179,952 cars.